Golder Associates Inc.
15851 South US 27
Suite 50
Lansing, Michigan 48906
Telephone (517) 482-2262
Fax (517) 482-2460

REPORT OF WHIRLPOOL CORPORATION IMPROVEMENTS TO GROVER & MILLER PROPERTIES CLYDE, OHIO

AUGUST 2002

Before Removal

After Removal

Prepared for:

Whirlpool Corporation
2000 North M-63
Benton Harbor, Michigan 49022

Golder Associates Inc.
Project Number 993-8534

CONFIDENTIAL AND PRIVILEDGED: ATTORNEY WORK PRODUCT

DISTRIBUTION:

2 Copies	Whirlpool Corporation – Benton Harbor, Michigan
1 Copy	Whirlpool Clyde Division – Clyde, Ohio
1 Copy	Thompson Hine LLP – Dayton, Ohio
1 Copy	Greg Gillespie – Earth Tech, Grand Rapids, Michigan
2 Copies	Golder Associates Inc. - Lansing, Michigan

Table of Contents

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

Executive Summary

EXECUTIVE SUMMARY

This report provides a summary of the removal of non-hazardous porcelain coating residuals ("residuals") from December 2001 though February 2002 from the western portions of the Ron & Cynthia Grover and William & Joyce Miller properties (the "Site") located on County Road 236 in Green Creek Township near Clyde, Ohio (Figure 1). The Site is bordered on the west by South Creek, on the north by the 18-acre Edward Karr parcel, on the south by the 3.36-acre Don & Elidia Webb parcel.

In October 1999, the Whirlpool Corporation ("Whirlpool") retained Golder Associates Inc. ("Golder") to delineate the extent of the residuals by reviewing historical aerial photographs and drilling a series of 33 soil borings. The study indicated that residuals were present within two former disposal areas (Areas 1 and 2) within portions of both the Grover and Miller parcels. No residuals were observed beyond the Site property boundaries. In October 2001, Whirlpool authorized Golder to direct the removal of the residuals on its behalf. The project objective was to remove the residuals on the Grover and Miller properties, and in doing so, eliminate the possibility of direct contact with the material.

In October and November 2001, Golder and Whirlpool prepared for the removal by developing Access Agreements with the landowners, securing approvals for hauling and disposing the residuals, and photo-documenting pre-removal surface conditions. In accordance with the Grover and Miller Access Agreements, Whirlpool coordinated a pre-removal inventory of trees. Whirlpool contracted directly with Maverick Field Services ("Maverick") to perform the removal, hauling, and disposal.

Following haul road construction on the Karr and Grover properties from December 12 – 14, 2001, excavation and disposal of the residuals in Area 1 took place from December 15, 2001 through January 12, 2002. Area 2 residuals were excavated and disposed from January 12 - 30, 2002. Soil was also removed from topographically low areas on the Karr and Webb properties that historically received runoff from Areas 1 and 2, respectively. Materials were disposed at the BFI landfill in Port Clinton, Ohio.

A total of 31 verification soil samples were collected, and the excavation surfaces and property lines at the Grover, Miller, and Webb properties were surveyed from January 24 – 30, 2002. A review of the analytical results for 14 metals of concern indicate that no direct contact risks remain on any of the four properties. Based on these results, Golder and Whirlpool directed Maverick between February 6 – 9, 2002 to backfill and topographically re-grade the properties in accordance with the Access Agreements. Borrow soil was obtained from City of Clyde property in order to complete the backfilling. The project was completed with the removal of the haul road on the Karr and Grover properties from February 11- 13, 2002. The cost to Whirlpool since 1999 for the improvements to the properties is over $1.08 million.

1.0 INTRODUCTION

This report provides a summary of the removal of appliance porcelain coating residuals from December 2001 though February 2002 from the Ron & Cynthia Grover and William & Joyce Miller properties (the "Site") located on County Road 236 in Green Creek Township near Clyde, Ohio (Figure 1).

1.1 Site Description

The Site comprises two contiguous residential properties that are shown in Figure 2. The larger of the properties, located at 1672 County Road 236, has been owned by Ronald and Cynthia Grover since 1988. The south-adjacent and smaller parcel, located at 1682 County Road 236, has been owned by William and Jessica Miller since 1969. The Site is bordered on the west by South Creek, on the north by the 18-acre Edward Karr parcel, on the south by the 3.36-acre Webb parcel, and on the east by County Road 236.

1.2 Previous Studies

In October 1999, the Whirlpool Corporation ("Whirlpool") retained Golder Associates Inc. ("Golder") to delineate the approximate extent of the porcelain coating residuals ("residuals") at the Site. The location and extent of the residuals was assessed at this time based on: a) a Site walk-over with Mark DelGarbino of the Whirlpool Clyde Division, Ron Grover and William Miller; b) Golder's examination of historical aerial photographs that were taken between 1951 and 1977; and c) a series of 33 soil borings (i.e., SB-1 though SB-33) and five additional borings, SB-34 through SB-38, that were hand-augered in August 2000 (Figure 2).

1.2.1 Extent of Residuals

The soil boring study indicated that residuals were present within two historical disposal areas (Areas 1 and 2) within portions of both the Grover and Miller parcels. No residuals were observed beyond the Site property boundaries. The approximate extents of the residuals in Areas 1 and 2, as inferred from the 38-boring program, are shown in Figure 2.

1.2.2 Waste Characteristics

Laboratory analyses of 10 samples in October 1999 indicated that the residuals contain arsenic, barium, and nickel in excess of Ohio EPA Generic Direct Contact Standards. These results, summarized in Table 1, indicated that some form of corrective action was needed to further reduce the potential for exposure to the residuals, and to prevent the residuals from eroding into South Creek.

1.3 Objectives

In October 2001, Whirlpool authorized Golder to direct the removal of the residuals on their behalf. The project objective was to remove the residuals on the Grover and Miller properties, and in doing so eliminate the possibility of direct contact with the material.

2.0 PRE-REMOVAL ACTIVITIES

In October and November 2001, Golder and Whirlpool prepared for the removal of the residuals by preparing Access Agreements with the landowners, securing approvals for hauling and disposing the residuals, and documenting pre-removal surface conditions. Maverick Field Services ("Maverick") of Ewtah, Alabama, contracted directly with Whirlpool to perform the work. Maverick subcontracted with Sylvester Trucking of Genoa, Ohio to transport the residuals to the disposal facility.

2.1 Property Access Agreements

In October 2001, Whirlpool communicated to the Grovers and Millers its desire to conduct the residuals removal at the Site. In December 2001, Whirlpool reached Access Agreements with the Grovers and Millers through their attorney, Jerry Semer of Fremont, Ohio, for the on-Site work. Access Agreements were also prepared in December 2001 for the Karr and Webb parcels, where Golder directed the removal of soil from topographically low areas that contained stressed vegetation, which may have been a result of runoff from Areas 1 and 2, respectively. The Karr access agreement also allowed Whirlpool to construct a temporary haul road between County Road 236 and Areas 1 & 2 on the Grover property. Copies of the Grover, Miller, Karr, and Webb Access Agreements are contained in Appendix A.

2.2 Pre-Construction Site Conditions

Within the affected portions of Areas 1 and 2, the removal of the residuals required: a) the removal of all vegetation; and b) alteration of the topography. These circumstances were addressed in the Access Agreements. Whirlpool coordinated an inventory of the trees on the Grover and Miller properties, and Golder documented pre-removal surface and topographic conditions through a series of photographs. These preparatory actions are described below.

2.2.1 Tree Inventory

In accordance with the Grover and Miller Access Agreements, Whirlpool coordinated an inventory of existing trees on these properties prior to construction. Whirlpool retained Barnes Nursery Inc. (BNI) of Port Clinton, Ohio to conduct the inventory on December 14, 2001. The scope of the survey included identification of the species and size of each tree. The nursery's report is contained in Appendix B.

2.2.2 Physiography

Appendix C contains photographs of pre-removal surface and topographic conditions. Photographs 1 through 12 display pre-removal conditions at Area 1. Photographs 13 through 24 display pre-removal conditions at Area 2. Pre-removal conditions at the Karr and Webb properties are shown in Photographs 25 and 26, respectively. The location and orientation of each photo is depicted on Figure C-1 at the front of Appendix C.

The western portion of the Grover parcel (i.e., west of the western boundary of the Miller parcel) was nearly level (Photos 2 through 7), and contained a small oval-shaped non-regulated wetland in a low-lying area with dense cattail growth (Photos 8, 9,10). Because the wetland is of *de minimis* surface area (*i.e.*, < 5 acres), it was not subject to state or federal regulations. Before removal of the residuals, this area was drained by means of a 4-inch-diameter PVC pipe that discharged to South Creek (Photo 1). The western edge of Area 1, however, sloped steeply along South Creek, with an elevation difference of 8 to 9 feet. Area 2 on the Grover and Miller properties exhibited rolling to hummocky relief, at an elevation approximately 10 to 15 feet higher than Area 1 (background of Photos 11 and 12; Photos 13, 16, 17, 19, 20, 23).

The surficial soils at the Site are sandy. Not including the stressed areas within Area 1, the vegetative cover at Area 1 was formerly dense grass and brush. At Area 2, the Grover property was covered by a lawn (Photos 14 through 17) whereas the Miller property had dense grass and scattered brush (Photos 17 through 24). Various small and large trees were present on each property (Appendix B). A few small debris piles (Photos 9, 10) that were not generated by Whirlpool were present on both properties, including a pile of tires on the Miller property (Photos 17 and 18). These materials were subsequently removed by Whirlpool along with the residuals.

2.3 Haul Plan

In October 2001, Golder prepared a haul plan for the transportation and disposal of the excavated residuals. The haul plan specified the types of trucks, the waste type, the estimated load weight, and the proposed route to the landfill. The haul plan was approved by the Green Creek Township Board of Commissioners and by the Sandusky County engineering department. In accordance with the approval, Mark DelGarbino of Whirlpool, with Golder accompanying him, videotaped the condition of the township roads prior to the hauling.

2.4 Waste Profiling and Disposal Facility

In October 1999, Golder submitted samples of the residuals for laboratory analysis of waste characteristics, including toxicity (i.e., via TCLP leach testing), ignitability, corrosivity, and reactivity. These analyses were performed in the event that the residuals would subsequently be removed. The test results indicated that the residuals are not "hazardous wastes" under Ohio or USEPA regulations. On October 18, 2001, Whirlpool submitted the results of these tests to the BFI landfill in Port Clinton, Ohio. BFI subsequently approval the disposal of the residuals as a special non-hazardous waste.

2.5 Haul Road Construction

Before removing residuals from the Grover and Miller properties, Maverick constructed a temporary haul road on the Karr property from December 12 – 14, 2001. The road was constructed of crushed stone in a six-inch lift with a layer of geotextile underneath (Photos 25 and 26). No excavation of the underlying soil was necessary. Geotextile was laid over the undisturbed ground and stone was placed over the geotextile. The geotextile acts as a barrier between the ground and the stone, while allowing moisture to pass through the stone into the ground. The geotextile also prevented the two materials from being pressed into the underlying soil, which allowed the subsequent removal of the haul road (Section 4.4) to be more efficient. During the course of the residuals excavations, the haul road was periodically maintained as it deteriorated under the weight from the dump trucks.

The initial proposed haul road was to terminate in a turnaround at the northwest corner of Area-2. Due to the distance between the northeastern portion of Area 1 and the northwestern portion of Area 2, Maverick extended the haul road an additional 75 feet and constructed a second turnaround at Area 1. During construction of the haul road, three trees (Nos. 22, 25, and 26 on the BNI survey map; Appendix C) were removed.

3.0 REMOVAL OF THE RESIDUALS

James Garrett of Golder provided daily oversight of construction activities, including haul road installation. Mr. Garrett furnished photographs and daily reports to Todd Hamilton (construction manager) and David Regalbuto (project manager) in Golder's Lansing, Michigan office, and maintained frequent correspondence with the Whirlpool Clyde Division point of contact, Mark DelGarbino. Mr. Garrett was also responsible for daily tracking of areas and quantities of residuals disposed, collection of removal verification soil samples (Section 4.1), photo documentation, and oversight of Maverick's work to ensure consistency with the Access Agreements.

3.1 Grover Property - Area 1

Excavation of residuals from Area 1 took place between December 15, 2001 and January 12, 2002. Photographic documentation of the Area 1 removal is contained in Appendix D, Photos 1 through 20. Photograph locations and orientations are shown in Figure D-1.

3.1.1 Area 1 Residuals

Maverick began the excavation by installing a silt fence along the base of the slope above South Creek (Photo 4) to prevent residuals from entering the creek. Stone was also placed in front of the silt fence to aid in removal of solids from runoff.

Excavation proceeded by removing the residuals that were exposed along the top of the creek bank. The residuals along the top of the creek bank were found to be approximately three to five feet thick (Photos 3 and 4). This activity was completed on December 21, 2001. Excavation then continued in a general west to east direction until reaching the end of visible extent of residuals to the north, east, and south (Photos 5 through 16). No visible residuals were observed beyond the north and south Grover property lines with the Karr and Webb properties, respectively. During excavation, a thin layer of overburden soil (e.g., < 1 foot) was removed along with the residuals, as was approximately 2 to 3 inches of undercut native soil in order to achieve complete removal of the residuals.

The extent and thickness of the residuals that was observed during the Area 1 excavation was found to be generally consistent with that determined from the October 1999 borings, except in two areas, as follows:

- In the northwest corner of Area 1 (Photo 1), the boring data showed the thickness to be 2.7 feet, while the excavation of the area showed the thickness to be approximately 4.5 feet.

- In the southeast corner of Area 1, the horizontal extent was approximately 30 feet greater than the estimate from the borings.

All visible residuals were removed.

Golder's observations indicated that Area 1 had been constructed with sand berms along the northern and southern boundaries to prevent the residuals from flowing into the neighboring properties. Golder observed layering of residuals and sand within these berms, which suggests that the berm elevations gradually increased. The eastern edge Area 1 exhibited a sharp boundary with steep sides (Photos 17, 18, 19).

Area 1 covered approximately 54,000 square feet. The volume and weight of residuals excavated totaled 11,600 cubic yards and 13,920.37 tons, respectively. The excavation of Area 1 was completed on January 12, 2002.

3.1.2 Area 1 Debris Piles

The Grover property had two small existing debris piles (Appendix C; Photos 9 and 10) that contained scrap metal and brush. The piles were removed from the Site along with the overburden.

3.1.3 Area 1 Trees

Not including the trees removed during the haul road construction (Section 2.4), a total of 12 trees were removed from Area 1. Seven were removed during the week of December 15 - 21, 2001. In reference to the BNI survey map (Appendix B), these were trees numbered 22, 25, 26, 27, 28, 32, and 33. The other five trees, Numbers 29, 30, 31, 34, and 35 were removed during the week of January 7 – 12, 2002.

3.2 Webb Property

Excavation of soil from the Webb property took place on January 10, 2002. Although no residuals have ever been observed on the Webb property, Whirlpool agreed to remove soil that may have received runoff from Areas 1 and/or 2 on the Grover and Miller properties. The area excavated on the Webb property was 3,750 square feet, and encompassed the vegetatively stressed and topographically lowest areas adjacent to Areas 1 and 2. The area excavated was one foot in depth. The volume of waste excavated totaled 140 cubic yards. The total amount of soil removed from the Webb property was 160 tons.

3.3 Karr Property

Excavation of soil from the Karr property took place on January 25, 2002. Although no residuals have ever been observed on the Karr property, Whirlpool agreed to remove soil that may have received runoff from Area 1 on the Grover property. The excavation on the Karr property totaled 2,025 square feet in the topographically lowest area adjacent to Area 1. The area was excavated to a six-inch depth. The volume of soil excavated totaled 75 cubic yards. The total amount of soil removed from the Karr property was 90 tons.

3.4 Grover and Miller Properties – Area 2

Excavation of residuals from Area 2 took place between January 12, 2002 and January 30, 2002. Photographic documentation of the Area 2 removal are contained in Appendix D, Photos 21 through 40. Photograph locations and orientations are shown in Figure D-1.

3.4.1 Area 2 Residuals

Excavation began on the east boundary of Area 2. The residuals here were found to be three to four feet thick. Maverick began the excavation by trenching around the perimeter of the area in order to verify the extent of the residuals. Test pits were excavated to determine the depth of residuals. Excavation continued in a general east to west direction (Photos 21 through 26) until Maverick reached the end of visible residuals to the north, west, and south. No Area 2 residuals were encountered beyond the southern boundaries of the Grover or Miller properties (Photos 28 and 31).

In Area 2, the October 1999 borings indicated the presence of up to three feet of clean overburden soil composed of silty sand. Golder's pre-removal design in October 2001 was to use the clean over-burden as backfill once excavation was completed. During the excavation of the over-burden, however, isolated pockets of residuals (Photo 30) were encountered, which made it impossible to cost-effectively segregate the clean over-burden from the entrained residuals. For this reason, nearly all the Area 2 overburden was disposed with the residuals.

The waste thickness observed during excavation verses the thickness determined from the borings varied in several areas. After proceeding approximately 20 feet from the east boundary of Area 2, the thickness of the residuals was found to rapidly increase to as much as 8 to 10 feet, whereas the thickness observed in the October 1999 borings was 5.8 feet. The thickness of residuals was found to be on the order of 10

feet as the excavation progressed 50 feet west of the east boundary line. For the remainder of the westward excavation the 10-foot thickness became constant, then tapered to 5 feet at a distance 10 feet east of the west boundary of Area 2.

Area 2 covered approximately 32,200 square feet. The volume and weight of residuals excavated totaled 13,800 cubic yards and 17,550 tons, respectively. The excavation of Area 1 was completed on January 30, 2002.

3.4.2 Area 2 Debris

During the Area 2 excavation, Whirlpool, as a gesture of good will and at its own expense (though not responsible for the materials), directed Maverick to remove a pile (Photos 17 and 18) consisting of 212 rubber tires and 13 car wheels. Because these materials do not qualify as demolition-related debris, they were classified and disposed by a licensed and Whirlpool-retained contractor as a special regulated waste.

3.4.3 Trees

During the excavation of Area 2, eleven trees were removed. Nine were excavated during the week of January 12 - 19, 2002. In reference to the BNI survey map, these were Numbers 36, 37, 38, 39, 40, 41, 42, 43, and 44. Once restoration began in Area 2 (Section 4.2), two more trees, Numbers 23 and 24, were excavated.

4.0 POST-REMOVAL ACTIVITIES

The post-removal activities that are described in the following sections include:

- Soil sampling from the excavations to document removal of residuals.
- Surveying to re-establish property boundaries and document the immediate post-removal excavation surface.
- Testing and importation of clean soil from a City of Clyde-owned property for use as backfill.
- Haul road removal.

Photographs of the Site following backfilling and re-grading of the topography are contained in Appendix E. Photograph locations and orientations are shown in Figure E-1.

4.1 Post-Removal Verification Soil Samples

Upon completion of excavations on the Grover and Miller properties, soil samples were taken from Area 1, Area 2, Webb property and the Karr property at the locations shown in Figure 3. The purpose of the samples was to verify that removal effort on all four properties was successful in eliminating direct contact risks.

On January 24, 2002 twelve soil samples (GM1-01 through GM1-12) were taken in Area 1 and four in Area 2 (GM2-01 through GM2-04). On January 29, 2002, eight additional soil samples were taken in Area 2 (GM2-05 through GM2-12) and three samples were collected from each of the Webb (Webb-01, -02, and –03) and Karr properties (Karr-01, -02, and -03). A thirteenth soil sample, GM2-13, was collected on January 30, 2002 from the former residuals staging area at the northwest corner of Area 2.

4.1.1 Soil Sampling

To collect the verification samples, Golder used a decontaminated shovel to dig to a depth of approximately 6 inches. The soil samples were placed in an air-tight plastic bag and then taped to ensure that seal would not be broken during transport. Each sample was assigned a unique sample number. Each sample bag was marked with the sample date, the project number, the project name and location. Once the samples were collected, they were shipped via overnight courier to the Golder office in Lansing, Michigan.

4.1.2 Analyses

The verification soil samples were transported from Golder to Merit Laboratories of East Lansing, Michigan. Merit is a Certified Laboratory for the analysis of metals under the Ohio Environmental Protection Agency ("OEPA"). Each sample was analyzed for a suite of 14 metals that were detected in the October 1999 residuals samples.

The analytical results for these samples are summarized in Table 2. Analytical laboratory reports are contained in Appendix F. None of the results exceed their corresponding Generic Cleanup Criteria established by the OEPA. These results indicate to a reasonable degree of certainty that former direct contact risks associated with the residuals have been removed from each of the properties where residuals and soil was removed. On this basis, Whirlpool determined that the excavations were complete, and that post-removal surveying, re-grading, and backfilling could commence.

4.2 Surveying

The Grover and Miller properties were surveyed upon completion of the excavations. The purposes of the survey were to:

- Permanently record the horizontal extent(s) and elevation(s) to which the residuals and soil were excavated.
- Record the verification soil sample locations.
- Provide measurement data for of the computation of the volume of over-burden and residuals removed from the site for comparison with the total weight as determined from individual landfill receipts.
- Re-establish the locations of the existing property lines between the four properties involved in the project.

Village Engineering ("Village") surveyed the site on several different dates. On January 25, 2002, Village surveyed Area 1 and the post-removal verification soil sample locations on the Grover and Webb properties. Village returned on January 29 - 30, 2002 to complete Area 2 and its verification soil sample locations. The property lines were surveyed on January 30.

On February 6, 2002, Village returned to the site to stake the fence line between the Webb and Grover property. Maverick ordered all materials needed to replace the Webb fence, which had been removed before soil was excavated from the Webb property. Village returned on February 28, 2002 to stake the property corners.

4.3 Backfilling and Re-grading

Re-grading took place between February 4 – 9, 2002 (See Figure 3 for the post-grading topography). Because little of the Area 2 overburden could be used as a clean backfill, portions of both Area 1 and 2 were backfilled using an off-site source. The fill was compacted using the weight of the heavy machinery. Maverick decontaminated all equipment before restoration and re-grading of the Site began.

4.3.1 Off-Site Backfill Source Characterization

The City of Clyde furnished Whirlpool with borrow soil from a vacant parcel of agriculture-zoned land located north of Limerick Road and east of Main Street, across from the city reservoir. To access the borrow soil, Whirlpool directed Maverick to construct a gravel haul road on the City-owned property. The road is approximately 20 feet wide, 600 feet long, and is composed of 1 foot of crushed stone with a geotextile liner.

Prior to Whirlpool's selection of the City property as the borrow source, Golder collected two soil samples from this parcel on January 19, 2002. Golder also collected two samples from the Karr property, which had also been considered as a borrow source. Since both properties have been used for agriculture, the samples were analyzed by TestAmerica Laboratories for pesticides and herbicides. No constituents were detected. Analytical Laboratory reports for the samples are contained in Appendix G.

4.3.2 Backfill and Re-grading

Pursuant to the Access Agreements, the excavation areas were to be backfilled to "eliminate abrupt topographic peaks and depressions. In doing so, the final land surface elevations at the property boundaries will be at least equal in elevation to the adjacent properties." These requirements were met. Restoration of Area 2 began on February 4, 2002. Maverick used existing soil at Area 2 to start re-grading. Restoration began at the eastern limit of Area 2 and proceeded westward (Photos 12 through 20). The north property line was also sloped with the existing soil. Restoration of Area 1 (Photos 1 through 11), the Webb property (Photo 9) and the Karr property (Photos 21 and 22) began on February 5, 2002. Maverick began by pushing the existing soil from the north and south property lines toward the interior of Area 1, which Golder interprets as having been historically been built up as berms to retain the residuals on-Site.

Maverick then began importing backfill from the City source on February 6, 2002. Backfill was placed at the eastern boundary of Area 2 and then worked westward into the excavation. In order to preserve the

east-west-oriented line of pine trees between Area 2 and the Grover's north property line, the north-central portion of Area 2 was graded on a 4:1 slope beginning immediately south of the tree line (Photos 13 and 14), extending to the center of Area 2. The remaining portion of Area 2 was graded with a more gradual slope from east to west for surface water drainage. The total of borrow source material hauled into Area 2 was 4,046 tons.

Maverick began bringing in backfill for Area 1 on February 9, 2002. Backfill was placed at the eastern limit of the area and worked westward. Backfill was required for Area 1 for only one day because the existing soil volume that was obtained from the former berms along the north and south Grover property lines was nearly enough to create the desired grade. Area 1 was graded on a gradual east to west slope to allow for surface water drainage to the creek. The resulting Area 1 surface was then tied into the existing slope at the western limit of Area 2. The total of borrow source material hauled into Area 1 was 1,486 tons.

4.4 Haul Road Removal

Maverick excavated the temporary haul road from the Grover and Miller properties on February 11 – 13, 2002. The stone from the excavation was hauled to Whirlpool property to be re-used on other unpaved roads.

4.5 Reseeding

The Access Agreements specify that Whirlpool shall reseed the disturbed portions of the Grover, Miller, and Webb properties that were vegetated prior to excavation activities. The Webb property was reseeded on May 22, 2002. The Millers and Grovers have not, as of this writing, granted Whirlpool access to re-seed the properties.

5.0 COSTS TO WHIRLPOOL

Beginning with Golder's Site visit in September 1999, and ending with Golder's preparation of this report, Whirlpool has completed and documented the removal of the residuals from the Grover and Miller properties for an approximate total cost of $1.08 million dollars. The distribution of these costs are summarized in Table 3 and are described in the following sections.

5.1 Site Characterization and Report

As described in Section 1.2 of this summary report, Whirlpool retained Golder to characterize the nature and extent of the residuals from September 1999 through the drilling of supplementary borings in August 2000. Upon completion of this work, Golder prepared a report of its findings for Whirlpool. The total cost for this effort was $41,399, and included the following:

- Site visit in September 1999, including acquisition of aerial photos and plat maps from the Sandusky County Engineers Office.
- October 1999 soil boring and residuals sample analytical program.
- August 2000 supplemental soil boring and residuals sample analytical program.
- Preparation of the August 2000 site characterization report.

5.2 Removal of the Residuals

Whirlpool compensated the excavation contractor, Maverick Field Services, an approximate total of $968,620 for the removal, transportation, and disposal of the residuals, followed by site re-grading. This total includes the construction and removal of the temporary haul road on the Karr and Grover properties, and placement of clean backfill.

5.3 Excavation Oversight and Documentation

In preparation for and during the removal of the residuals, Golder assisted Whirlpool by providing the following services:

- Prepared a Work Plan.
- Performed pre-removal site visits to outline the projected extents of excavation on the Karr, Webb, Grover, and Miller properties, including the collection pre-removal photographs of surface conditions.
- Prepared a Health and Safety Plan, a haul plan, and obtained approval from the disposal facility for the non-hazardous residuals.
- Retained and on a daily basis documented the actions of Maverick Field Services.

- Provided weekly reports to Whirlpool.
- Retained a surveyor to document the final excavation grades.
- Collected and analyzed cleanup verification samples, and tested imported backfill.
- Prepared this summary report.

The total cost of these services to Whirlpool was $67,101.

5.4 Tree Valuation

The results of the BNI report (see Section 2.2.1) are contained in Appendix B, including the value and replacement costs for each of the 60 trees that were identified in the vicinity of the work area on the Grover and Miller properties. Table 4 summarizes the valuation for:

- The 12 trees that required removal from Area 1 on the Grover property and during the construction of the haul road. The total estimated value of theses trees is $1,710.
- The 11 trees that required removal from Area 2. Of these, four trees (Nos. 36, 37, 38, and 44) valued at an estimated $1,620 were formerly on the Miller property, and seven trees with a combined estimated value of $2,240 were on the Grover Property.

The total value of the trees as determined by BNI is $5,570. The BNI survey cost Whirlpool $700.

5.5 Tire Removal – Area 2 (Miller Property)

During the Area 2 work, Whirlpool removed from the Miller property a pile of debris consisting of 212 rubber tires and 13 car wheels. Whirlpool conducted this work as a goodwill gesture for the Millers, even though the materials were not located within the extent of the Area 2 residuals. Because the materials could not be disposed with the residuals, Whirlpool retained an additional contractor to remove and dispose the debris. This work was performed at an additional cost to Whirlpool of approximately $1,400.

Tables

TABLE 1
RESIDUALS ANALYTICAL RESULTS (1999)
GROVER & MILLER PROPERTIES
GREEN CREEK TOWNSHIP, CLYDE, OHIO

MATRIX:		RESIDUALS (mg/kg, dry weight)											
		TYPE A				TYPE B				TYPE B/C			TYPE C
LOCATION & DEPTH:		SB-18	SB-19	SB-32	SB-32	SB-3	SB-7	SB-20	SB-32	SB-1		SB-18	SB-20
Parameter	OEPA Limit	3 - 6	3 - 8	1.4-5.4	3.5	0.3-2.2	1.4-3.2	5.8-7.7	5.4-10	1.5-3.3	DUP	6 - 9	7.7-9.9
Aluminum	72,000	7,980	8,890	7,890	4,150	6,890	6,400	12,300	4,920	5,400	5,902	8,130	5,940
Antimony	18	9.6	10.7	5.9	21	9.1	8.6	17.1	8.1	7.3	8.7	7.1	16.8
Arsenic	6.9	97	67	65	61	28	20	60	39	18	20	56	22
Barium	5,000	9,120	8,300	8,090	5,460	4,760	5,340	9,570	4,060	2,720	2,960	6,880	893
Beryllium	360	2	2	2	2	1	1	--	1	2	2	3	1
Boron	NE	3,200	2,900	4,000	2,400	4,800	4,000	12,000	2,700	2,900	3,154	3,400	5,600
Cadmium	32	--	4	3.4	--	--	1.4	4.7	2	--	--	--	3
Calcium	NE	25,300	28,700	22,000	20,000	35,300	22,000	19,400	16,500	18,400	17,587	24,400	13,000
Chromium	8,800	165	249	113	189	111	64	101	111	114	105	154	378
Cobalt	13,000	932	797	1,040	336	475	644	1,690	391	279	213	710	483
Copper	NE	175	170	153	134	108	105	252	102	74	75	195	161
Iron	NE	39,600	60,400	33,400	88,900	22,400	14,400	22,200	30,400	17,200	17,900	45,600	31,500
Lead	400	214	278	156	308	99	72	193	141	59	67	237	114
Magnesium	NE	10,800	13,100	10,200	7,430	15,000	8,150	14,100	10,100	6,930	7,870	17,400	7,500
Manganese	NE	1,620	1,470	1,480	1,310	884	926	2,400	757	579	627	1,280	957
Mercury	16	0.40	0.28	0.24	0.10	0.10	0.11	0.21	0.15	0.14		0.30	0.16
Nickel	450	2,200	2,590	1,940	2,190	1,020	927	2,330	1,200	608	692	2,200	1,230
Potassium	NE	5,590	6,160	6,000	7,430	3,980	4,410	13,700	3,260	2,480	2,800	4,550	5,290
Selenium	NE	--	--	--	--	--	--	--	--	--	--	--	--
Silicon	NE	511	387	284	270	362	190	368	292	133	133	309	202
Silver	360	--	--	--	--	--	2	15	--	--	--	--	--
Sodium	NE	4,510	4,630	4,780	3,910	6,330	10,700	19,700	2,330	5,500	5,990	2,950	9,890
Thallium	NE	--	--	--	--	--	--	--	--	--		--	--
Tin	NE	--	--	--	5	--	--	--	--	1	1	--	--
Vanadium	500	12	16	11	14	13	11	16	10	12	13	16	12
Zinc	19,000	4,600	6,040	4,470	1,830	2,500	2,030	5,610	2,850	1,400	1,580	3,910	2,410

Notes: 1. Dash (--) indicates constituent was not detected.

2. Bold Box (i.e., [ ]) indicates that result exceeds OEPA limit or screening criterion

TABLE 2
VERIFICATION SAMPLE ANALYTICAL RESULTS
GROVER & MILLER PROPERTIES
GREEN CREEK TOWNSHIP, CLYDE, OHIO

Metal	OEPA Limit	VERIFICATION SAMPLE ANALYTICAL RESULTS (Mg/Kg, dry weight)																														
		Area 1 (GM1-Series)												Area 2 (GM2-Series)													Karr Property			Webb Property		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	1	2	3
Aluminum	72,000	3,700	2,430	2,440	5,860	4,980	2,050	3,800	3,090	2,370	2,380	3,060	2,050	1,110	2,660	1,620	1,150	1,160	1,200	1,280	1,050	2,320	1,760	3,410	1,240	745	1,830	3,690	3,940	2,140	4,460	3,060
Antimony	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	6.9	6.01	3.37	1.75	1.29	1.55	1.68	1.72	1.01	0.62	2.22	1.79	1.91	1.64	0.64	3.82	1.47	0.8	0.8	1.6	2.1	2.5	0.8	1.7	0.9	0.7	1.9	3.9	4.3	2.4	3.1	1.2
Barium	5,000	1,050	121	20.5	55.4	56.7	14.4	31.8	18.5	25.2	15.9	41.7	63.6	10.4	21.8	26.8	89.9	8.1	7.8	5.9	9.1	16.8	14.3	18.2	16.9	12.4	18.0	42.5	39.6	22.8	44.9	24.3
Beryllium	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boron	70,000	400	4.4	-	356	445	197	369	203	92.4	-	2.0	15	-	-	12	99	25	23	26	-	-	-	-	53	75	35	75	24	3	14	21
Cadmium	32	0.52	0.11	0.09	0.10	0.33	0.10	0.14	-	0.05	0.07	0.08	0.07	-	-	0.07	0.07	-	-	-	-	-	-	-	-	-	0.08	0.28	0.26	0.06	0.31	0.12
Chromium	8,800	14.8	5.0	3.8	7.4	7.1	3.3	5.1	5.2	3.4	3.7	3.6	3.2	2.1	2.3	3.5	4.6	2.5	2.3	2.5	1.9	3.7	2.3	5	2.8	1.4	3	6	6.2	3.45	6.3	4.1
Cobalt	13,000	111	12.4	2.94	6.62	4.08	1.84	3.04	3.00	2.38	3.40	7.84	8.07	2.27	1.65	3.65	11.2	1.1	2.4	2.9	2.0	3.8	1.5	4.1	2.6	1.4	1.9	3.4	3.4	3.0	4.6	2.6
Lead	400	21.1	5.8	4.9	9.6	8.6	2.8	5.2	4.4	3.6	5.3	6.0	4.4	2.8	2.6	3.15	4.3	2.4	3.0	4.0	2.5	4.7	3.2	6	2.8	2.8	5.9	23.1	10.6	6.6	9.6	4
Nickel	450	186	32.6	7.54	12.3	8.68	5.23	6.50	9.03	4.82	8.06	11.2	10.5	6.40	2.72	11.6	28.5	6.1	7.4	8.8	5.5	10.5	2.5	14.3	7.2	5.1	3.4	6.9	6.7	7.0	9.0	6.3
Silver	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	500	7.69	5.31	5.15	8.54	12.8	5.89	8.04	5.58	5.68	5.11	5.26	4.70	3.22	2.88	5.10	3.78	4.84	4.22	3.7	3.14	5.34	3.56	7.12	4.46	2.02	5.06	10	9.81	5.44	9.08	5.63
Zinc	19,000	372	51.6	15.7	29.8	30.6	15.1	18.3	26.6	16.2	17.4	17.6	23.5	13.1	6.2	16.2	48.1	12.4	13.5	14.3	11.0	19.5	7.4	15.4	14.4	11.4	12.7	42.4	27.3	19.4	34.8	18.7

Note: Dash (-) indicates that constituent was not detected.

TABLE 3
SUMMARY OF WHIRLPOOL EXTERNAL COSTS
SEPTEMBER 1999 - FEBRUARY 2002
GROVER, MILLER, KARR & WEBB PROPERTIES
GREEN CREEK TOWNSHIP, OHIO

Contractor/Item	Date(s)	Purpose	Amount Paid or Value ($)
Golder Associates:			
Site Characterization	September 1999 - August 2000	Delineate nature and extent of residuals	41,399
Removal Oversight and Documentation	September 2001 - February 2002	Ensure and document that removal is conducted in accordance with access agreements	67,101
Maverick Field Services	December 2001 - March 2002	Removal residuals, soil, and propoerty owners debris piles; regrade properties in accordance with access agreements	968,620
Tires/Wheels on Miller Property	February 2002	Assist Miller by removing debrfis from beyond the extent of the Area 2 residuals	1,200
Barnes Nursery	December 14, 2001	Conduct independent tree valuation in order to compensate property owners at fair market value, in accordance with access agreements	700
Tree Valuation	Trees removed during December 2001 - February 2002	Valuation of Trees Removed	5,570
		Total:	**$1,084,590**

Note: Table includes external consulting, engineering, earthmoving, transporation, and disposal costs. The total cost does not include Whirlpool's internal costs for its management of the project.

Table 4
Valuation of Trees Removed
December 2001 - February 2002
Grover and Miller Properties
Green Creek Township, Ohio

Area	Property	Tree Number	Type	Valuation ($)	Basis
1	Grover	22	Crabapple	200	Replaceable
		25	Boxelder	350	Replaceable
		26	Boxelder	100	Replaceable
		27	Gray Dogwood	65	Replaceable
		28	Gray Dogwood	65	Replaceable
		29	Cottonwood	100	Evaluation
		30	Cottonwood	100	Evaluation
		31	Boxelder	150	Replaceable
		32	Willow	100	Evaluation
		33	Willow	100	Evaluation
		34	Cedar	180	Replaceable
		35	Cottonwood	200	Evaluation
			Subtotal:	$1,710	
2	Grover	23	Boxelder	150	Replaceable
		24	Boxelder	250	Replaceable
		39	Japanese Black Pin	600	Replaceable
		40	Honeysuckle	65	Replaceable
		41	Spruce	210	Replaceable
		42	Austrian Pine	900	Replaceable
		43	Shrub Rose	65	Replaceable
			Subtotal:	$2,240	
	Miller	36	Spruce	210	Replaceable
		37	Spruce	210	Replaceable
		38	Cottonwood	300	Evaluation
		44	Austrian Pine	900	Replaceable
			Subtotal:	$1,620	
			Total:	**$5,570**	

Notes:

1. Based on December 14, 2001 survey by Barnes Nursery Inc.
2. **Replaceable** valuation is the estimated cost to replace the tree with the same species and at a diameter approximately equal to the existing tree.
3. An **evaluation** amount indicates that the tree is too large to be replaced at the same diameter/height; the estimated value is that by which the tree enhances the value of the property.

REFERENCE

1.) BASE MAP TAKEN FROM U.S.G.S. 7.5 MINUTE QUADRANGLES FREMONT EAST, OH DATED, 1980

2000 0 2000
scale feet

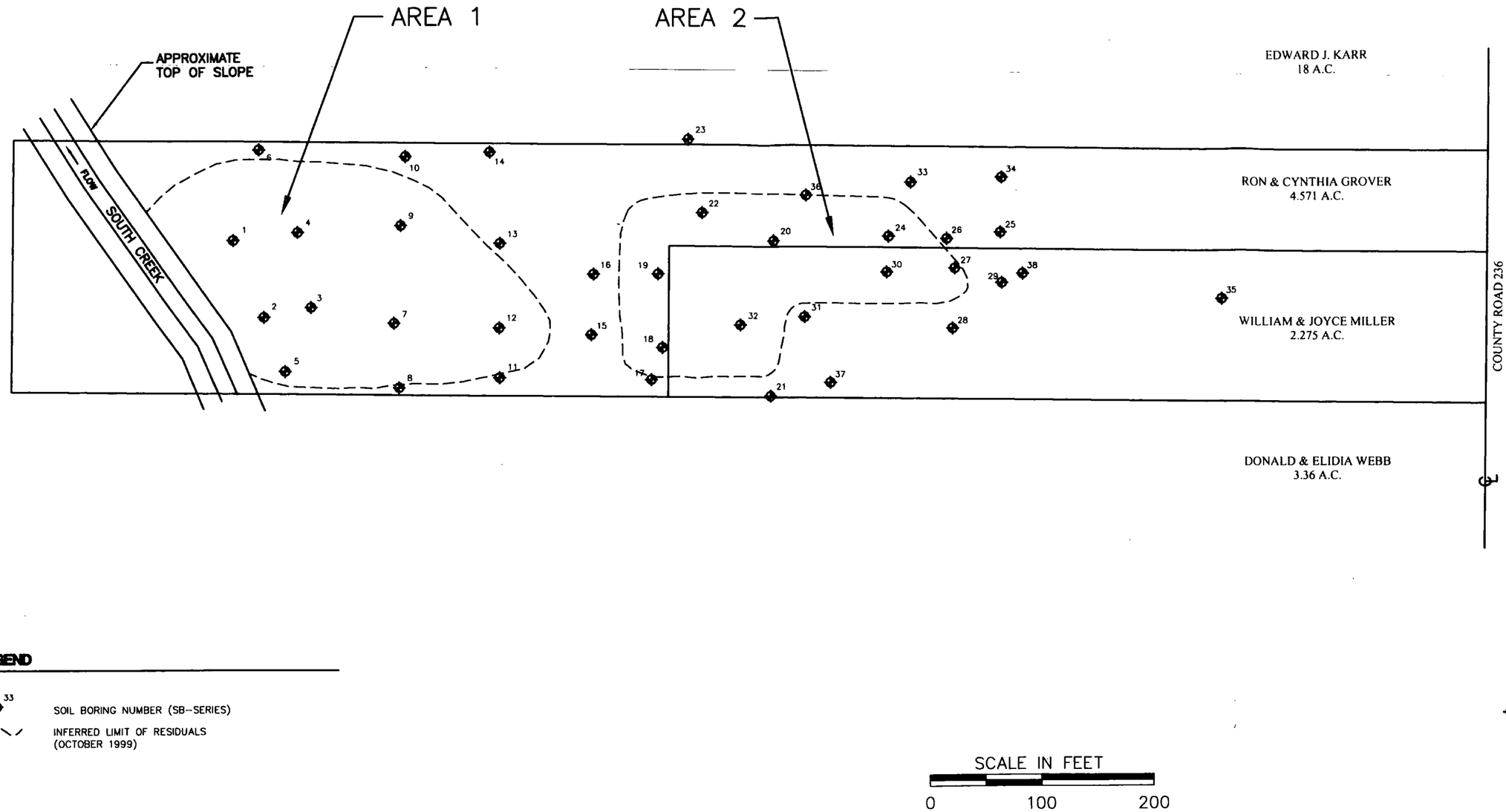
JOB No.:	993-8534	SCALE:	1"=2000'
R BY:	JJS, TMC	DATE:	06/10/02
CHK BY:	DPR	FILE No.:	8534-0001
REV BY:		DR SUBTITLE:	

SITE LOCATION MAP

Golder Associates

PORCELAIN RESIDUALS REMOVAL
GROVER & MILLER PROPERTIES
GREEN CREEK TWP. – CLYDE, OHIO

FIGURE 1



LEGEND

33 — SOIL BORING NUMBER (SB–SERIES)

INFERRED LIMIT OF RESIDUALS (OCTOBER 1999)

NOTES:

1. PROPERTY BOUNDARIES AND BORING LOCATIONS TAKEN FROM OCTOBER 1999 SURVEY BY GGC SURVEYORS, INC., JOB NO. 98153

SCALE IN FEET

0 100 200

N

Golder Associates — Lansing, Michigan

CLIENT/PROJECT

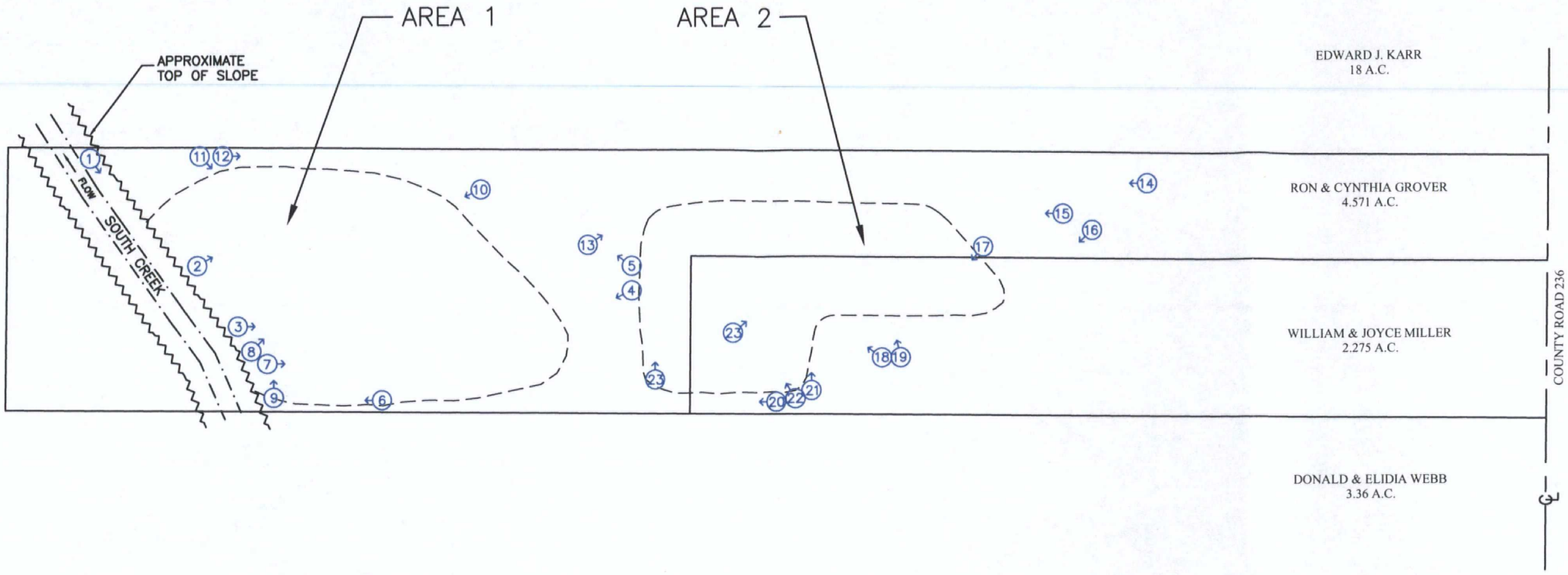
GROVER & MILLER PROPERTIES
GREEN CREEK TWP., CLYDE, OH
PORCELAIN RESIDUALS REMOVAL

TITLE

SITE PLAN

DRAWN TMC	DATE 06/11/02	JOB NO. 993–8534	
CHECKED	SCALE AS SHOWN	DWG. NO.	REV. NO.
REVIEWED	FILE NO. 8534–0002	SUBTITLE	FIGURE NO. 2

Drawing file: 8534-0002.dwg Jun 11, 2002 - 1:31pm



LEGEND

① PHOTOGRAPH NUMBER AND ORIENTATION

INFERRED EXTENT OF RESIDUALS (OCTOBER 1999)

SCALE IN FEET

0 100 200

N

NOTES:

1. PROPERTY BOUNDARIES TAKEN FROM OCTOBER 1999 SURVEY BY GGC SURVEYORS, INC., JOB NO. 98153

Golder Associates Lansing, Michigan

CLIENT/PROJECT

PORCELAIN RESIDUALS REMOVAL
GROVER & MILLER PROPERTIES
GREEN CREEK TWP. – CLYDE, OHIO

TITLE

PRE-REMOVAL PHOTOGRAPH LOCATIONS

DRAWN	JJS	DATE	07/10/02	JOB NO.	993-8534
CHECKED	DPR	SCALE	AS SHOWN	DWG. NO.	REV. NO.
REVIEWED		FILE NO.	8534-00C1	SUBTITLE	FIGURE NO. C-1

EDWARD J KARR
D.V. 333 P. 36
18 ACRES

N

SOUTH CREEK

RONALD & CYNTHIA
GROVER
D.V. 357 P. 305
4.571 ACRES

WILLIAM R & JOYCE M
MILLER
D.V. 281 P. 65
2.275 ACRES

N 89°57'57" E

N 89°58'00" E

DONALD & ELIDIA
WEBB
D.V. 360 P. 844
3.36 ACRES

665
675
680
670
667
668
669
671
674
673
672
159.84'
S 00°00'35" E
135.00'

60 0 60
SCALE FEET

LEGEND

- 5/8" DIA. x 30" LONG REBAR SET WITH CAP STAMPED "VILLAGE ENGINEERING"
- (1)→ NUMBER AND ORIENTATION OF PHOTOGRAPH
- LIMIT OF EXCAVATION RESIDUALS
- LIMIT OF DISTURBED GROUND DURING EXCAVATION

NOTE

1. ADAPTED FROM SURVEY PERFORMED IN JAN–FEB 2002 BY VILLAGE ENGINEERING LTD. (DRAWING NO. 01066A).
2. CONTOUR INTERVAL: 1 FOOT
3. SOIL VERIFICATION SAMPLES COLLECTED BY GOLDER ASSOCIATES, INC. FROM JAN 24–30, 2002

Golder Associates — Lansing, Michigan

CLIENT/PROJECT
GROVER & MILLER PROPERTIES
GREEN CREEK TWP. CLYDE, OH
PORCELAIN RESIDUALS REMOVAL

TITLE
REMOVAL PHOTOGRAPH LOCATIONS

DRAWN	TMC	DATE	06/07/02	JOB NO.	993–8534
CHECKED		SCALE	AS SHOWN	DWG. NO.	REV. NO.
REVIEWED		FILE NO.	8534–00D1	SUBTITLE	FIGURE NO. D–1

EDWARD J KARR
D.V. 333 P. 36
18 ACRES

N

SOUTH CREEK

RONALD & CYNTHIA
GROVER
D.V. 357 P. 305
4.571 ACRES

159.84'

S 00°00'35" E
135.00'

N 89°57'57" E

675

WILLIAM R & JOYCE M
MILLER
D.V. 281 P. 65
2.275 ACRES

N 89°58'00" E

DONALD & ELIDIA
WEBB
D.V. 360 P. 844
3.36 ACRES

60 0 60
SCALE FEET

LEGEND

- 5/8" DIA. x 30" LONG REBAR SET WITH CAP STAMPED "VILLAGE ENGINEERING"
- (1)→ NUMBER AND ORIENTATION OF PHOTOGRAPH
- LIMIT OF EXCAVATION RESIDUALS
- LIMIT OF DISTURBED GROUND DURING EXCAVATION

NOTE

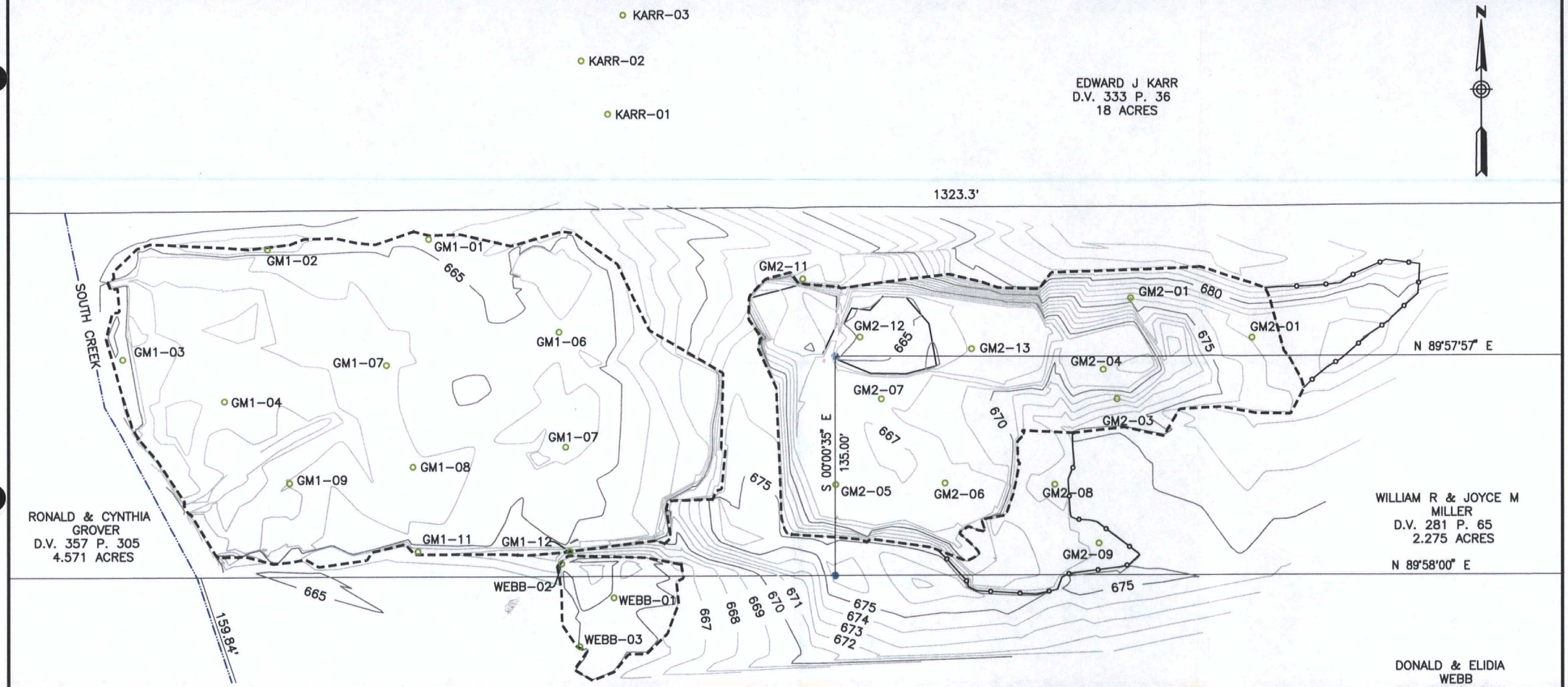
1. ADAPTED FROM SURVEY PERFORMED IN JAN–FEB 2002 BY VILLAGE ENGINEERING LTD. (DRAWING NO. 01066A).
2. CONTOUR INTERVAL: 1 FOOT
3. SOIL VERIFICATION SAMPLES COLLECTED BY GOLDER ASSOCIATES, INC. FROM JAN 24–30, 2002

Golder Associates — Lansing, Michigan

CLIENT/PROJECT
GROVER & MILLER PROPERTIES
GREEN CREEK TWP. CLYDE, OH
PORCELAIN RESIDUALS REMOVAL

TITLE
POST–REMOVAL PHOTOGRAPH LOCATIONS

DRAWN	TMC	DATE	06/10/02	JOB NO.	993–8534
CHECKED		SCALE	AS SHOWN	DWG. NO.	REV. NO.
REVIEWED		FILE NO.	8534–00E1	SUBTITLE	FIGURE NO. E–1



LEGEND

- ● 5/8" DIA. x 30" LONG REBAR SET WITH CAP STAMPED "VILLAGE ENGINEERING"
- GM1–01 ○ SOIL VERIFICATION SAMPLE LOCATION AND NUMBER
- – – – – LIMIT OF RESIDUAL EXCAVATIONS
- —○— LIMIT OF DISTURBED GROUND DURING EXCAVATION

NOTE

1. ADAPTED FROM SURVEY PERFORMED IN JAN–FEB 2002 BY VILLAGE ENGINEERING LTD. (DRAWING NO. 01066A).
2. CONTOUR INTERVAL: 1 FOOT
3. SOIL VERIFICATION SAMPLES COLLECTED BY GOLDER ASSOCIATES, INC. FROM JAN 24–30, 2002

Golder Associates — Lansing, Michigan

CLIENT/PROJECT
GROVER & MILLER PROPERTIES
GREEN GREEK TWP. CLYDE, OH
PORCELAIN RESIDUALS REMOVAL

TITLE
POST–REMOVAL TOPOGRAPHY AND VERIFICATION SOIL LOCATIONS

DRAWN	TMC	DATE	06/10/02	JOB NO.	993–8534
CHECKED		SCALE	AS SHOWN	DWG. NO.	REV. NO.
REVIEWED		FILE NO.	8534–0003	SUBTITLE	FIGURE NO. 3

Appendix A

Appendix A

Access Agreements

SITE ACCESS AGREEMENT

This Access Agreement is made this 28TH day of November, 2001, by and between Wm + Joyce Mills, having an address of 1182 Co. Rd 236 Clyde, Ohio (hereinafter referred to as "Licensor"), and Whirlpool Corporation, an Ohio corporation having an address at 119 Birdseye Street, Clyde, Ohio (hereinafter referred to as "Whirlpool").

WHEREAS, Licensor is the owner of certain real property located at 1182 Co-Rd. 236, Clyde, Ohio (hereinafter referred to as "the Premises"); and

WHEREAS, Whirlpool is willing to investigate and remediate certain conditions on the Premises; and

WHEREAS, Licensor acknowledges the benefit of Whirlpool's investigation and remediation of such conditions;

NOW, THEREFORE, the parties hereby agree as follows:

1. Grant of Access

Licensor hereby grants to Whirlpool, its employees, contractors, agents, consultants, designees and representatives, a temporary right and license to enter upon the Premises at reasonable times in order to investigate and remediate, in a manner not inconsistent with Ohio EPA's Voluntary Action Program, certain conditions on the western portion of the Premises, as shown on the attached Exhibit. This Agreement also grants Whirlpool the right to use the Premises to access to adjacent property from the Premises if Whirlpool has a separate access agreement with any such adjacent property owner.

2. Non-Interference with Licensor's Use

In exercising its rights under this Agreement, Whirlpool shall, at all times, conduct its activities in such a way as to not unreasonably interfere with the activities or operations of Licensor or with other authorized uses of the Premises and shall honor all reasonable instructions and requests which are made to them by Licensor or other appropriate parties.

3. Indemnity

Whirlpool covenants and agrees to save and keep harmless and indemnify Licensor and its successors and assigns, from and against any and all liabilities, losses, damages, costs, expenses, causes of action, suits, penalties, claims, demands, and judgments of every kind and nature, including without limitation, reasonable attorneys fees and expenses for (1) any personal injury; (2) property damage to any building, structure, fixture, parking area or landscaping; and (3) environmental investigation or remediation and/or waste disposal costs or obligations resulting or arising solely from Whirlpool's activities hereunder.

4. Threats to Human Health or the Environment

If any time during the performance of the work hereunder, Whirlpool or its agents discover any incident or condition which creates an emergency or danger to the health or safety of persons on or adjacent to the Premises, Whirlpool shall promptly notify Licensor of such incident or condition. If Licensor discovers any such condition it shall promptly notify Whirlpool.

5. Restoration

Upon conclusion of its work, Whirlpool shall exercise reasonable measures to restore the Premises to the conditions existing prior to conduct of such work and in accordance with all applicable requirements. Subject to unforeseen conditions or requirements, Whirlpool contemplates that the restoration shall consist of the following:

- Waste Removal. Whirlpool will remove the residuals that exist at and/or below ground level as have been previously identified. If additional pockets of similar residuals are encountered during removal, they will also be removed.

- Backfill excavated areas with clean fill.. The areas to be excavated will be backfilled with sand that is similar in texture to that found elsewhere on the properties. The sand will be obtained from a source that has been documented to be free from contamination. Because of the sandy texture and expected low-nutrient content of the fill, the vegetative cover will consist of six inches of topsoil. Construction areas will be reseeded with a mixture that is appropriate for site-specific conditions (e.g., full sun, well-drained substrate).

- Grade the effected portions of the Premises. At the completion of construction, the excavated areas will be backfilled to eliminate abrupt topographic peaks and depressions. In doing so, the final land surface elevations at the property boundaries will be at least equal in elevation to the adjacent properties.

- Stabilize Stream Bank. The stream bank will be left in a stabilized condition. Because the creek bank is naturally an eroded surface, it will not be lined following excavation. Before excavating residuals that are currently exposed along the top of the creek bank, a silt fence will be installed near the bottom of the slope to minimize residuals, native soil, and backfill materials from falling into the creek.

- Replace excavated/damaged field tiles and clean-outs. If field tiles are encountered within the extent of excavation and/or within adjacent soils that may need to be regraded, these tiles will be replaced. Clean-outs will be installed if

they are present within sections of tiles to be replaced. Tiles that discharge directly to South Creek will be replaced, provided that the discharge is permissible under the authority of the Sandusky County Engineer and/or Drain Commissioner.

- Trees. Prior to commencing site remediation work hereunder, Whirlpool shall confer with Licensor and prepare an inventory of the potentially affected trees. After completing the site remediation work, Whirlpool and Licensor shall in good faith seek to reach agreement on fair monetary reimbursement for the affected trees.

6. Compliance with Laws

Whirlpool shall comply promptly and fully with all present and future laws and regulations in connection with its work hereunder.

7. Construction and Intention

This Access Agreement is intended to be and shall be construed as a grant of temporary right of access and not an interest in the Premises.

8. Relationship of Parties

Nothing contained in this Access Agreement shall be deemed or construed by the parties, or any third party, as creating the relationship of principal and agent or of partnership or of joint venture between Licensor and Whirlpool, it being understood and agreed that no provision contained in this Access Agreement, nor any acts of the parties shall be deemed to create any relationship between the parties hereto other than the relationship of Licensor and Licensee.

9. No Admission of Liability

This Agreement does not and shall not constitute an admission of liability or responsibility for or with respect to conditions on the Premises. Whirlpool specifically denies any such liability or responsibility.

10. Captions

The captions in this Agreement are for convenience only and shall not be deemed to be a part hereof.

11. Governing Law

This Agreement shall be governed and construed in accordance with the laws of the State of Ohio. Any action to enforce the terms of this Agreement shall be brought in an appropriate court in Sandusky County, Ohio.

12. Amendment

This Agreement may not be modified or amended except by a written agreement duly executed by the parties hereto or by their respective successors or assigns, as the case may be.

13. Entire Agreement

This Agreement fully sets forth all agreements and understandings of the parties to this Agreement with respect to the matter hereof.

14. This Agreement, and all rights granted hereunder, shall terminate upon completion of the work hereunder or March 1, 2002, whichever shall occur first.

IN WITNESS WHEREOF, the parties have executed this Access Agreement on the day and year first above written.

LINCENSOR

William R. Miller

By: [signature]
Printed Name: William R. Miller
Name: Joyce A. Miller

Title: _____

Date: 12-8-2001

WHIRLPOOL CORPORATION

By: [signature]
Printed Name: Mark T DelGarbino

Title: SR Environmental Engineer

Date: 12-10-01

SITE ACCESS AGREEMENT

This Access Agreement is made this 28th day of November, 2001, by and between Paul Cynthia Gruver, having an address of 1672 SCR 236, Clyde, Ohio (hereinafter referred to as "Licensor"), and Whirlpool Corporation, an Ohio corporation having an address at 119 Birdseye Street, Clyde, Ohio (hereinafter referred to as "Whirlpool").

WHEREAS, Licensor is the owner of certain real property located at 1672 SCR 236 Clyde, Ohio (hereinafter referred to as "the Premises"); and

WHEREAS, Whirlpool is willing to investigate and remediate certain conditions on the Premises; and

WHEREAS, Licensor acknowledges the benefit of Whirlpool's investigation and remediation of such conditions;

NOW, THEREFORE, the parties hereby agree as follows:

1. Grant of Access

Licensor hereby grants to Whirlpool, its employees, contractors, agents, consultants, designees and representatives, a temporary right and license to enter upon the Premises at reasonable times in order to investigate and remediate, in a manner not inconsistent with Ohio EPA's Voluntary Action Program, certain conditions on the western portion of the Premises, as shown on the attached Exhibit. This Agreement also grants Whirlpool the right to use the Premises to access to adjacent property from the Premises if Whirlpool has a separate access agreement with any such adjacent property owner.

2. Non-Interference with Licensor's Use

In exercising its rights under this Agreement, Whirlpool shall, at all times, conduct its activities in such a way as to not unreasonably interfere with the activities or operations of Licensor or with other authorized uses of the Premises and shall honor all reasonable instructions and requests which are made to them by Licensor or other appropriate parties.

3. Indemnity

Whirlpool covenants and agrees to save and keep harmless and indemnify Licensor and its successors and assigns, from and against any and all liabilities, losses, damages, costs, expenses, causes of action, suits, penalties, claims, demands, and judgments of every kind and nature, including without limitation, reasonable attorneys fees and expenses for (1) any personal injury; (2) property damage to any building, structure, fixture, parking area or landscaping; and (3) environmental investigation or remediation and/or waste disposal costs or obligations resulting or arising solely from Whirlpool's activities hereunder.

4. Threats to Human Health or the Environment

If any time during the performance of the work hereunder, Whirlpool or its agents discover any incident or condition which creates an emergency or danger to the health or safety of persons on or adjacent to the Premises, Whirlpool shall promptly notify Licensor of such incident or condition. If Licensor discovers any such condition it shall promptly notify Whirlpool.

5. Restoration

Upon conclusion of its work, Whirlpool shall exercise reasonable measures to restore the Premises to the conditions existing prior to conduct of such work and in accordance with all applicable requirements. Subject to unforeseen conditions or requirements, Whirlpool contemplates that the restoration shall consist of the following:

- Waste Removal. Whirlpool will remove the residuals that exist at and/or below ground level as have been previously identified. If additional pockets of similar residuals are encountered during removal, they will also be removed.

- Backfill excavated areas with clean fill. The areas to be excavated will be backfilled with sand that is similar in texture to that found elsewhere on the properties. The sand will be obtained from a source that has been documented to be free from contamination. Because of the sandy texture and expected low-nutrient content of the fill, the vegetative cover will consist of six inches of topsoil. Construction areas will be reseeded with a mixture that is appropriate for site-specific conditions (e.g., full sun, well-drained substrate).

- Grade the effected portions of the Premises. At the completion of construction, the excavated areas will be backfilled to eliminate abrupt topographic peaks and depressions. In doing so, the final land surface elevations at the property boundaries will be at least equal in elevation to the adjacent properties.

- Stabilize Stream Bank. The stream bank will be left in a stabilized condition. Because the creek bank is naturally an eroded surface, it will not be lined following excavation. Before excavating residuals that are currently exposed along the top of the creek bank, a silt fence will be installed near the bottom of the slope to minimize residuals, native soil, and backfill materials from falling into the creek.

- Replace excavated/damaged field tiles and clean-outs. If field tiles are encountered within the extent of excavation and/or within adjacent soils that may need to be regraded, these tiles will be replaced. Clean-outs will be installed if

they are present within sections of tiles to be replaced. Tiles that discharge directly to South Creek will be replaced, provided that the discharge is permissible under the authority of the Sandusky County Engineer and/or Drain Commissioner.

- Trees. Prior to commencing site remediation work hereunder, Whirlpool shall confer with Licensor and prepare an inventory of the potentially affected trees. After completing the site remediation work, Whirlpool and Licensor shall in good faith seek to reach agreement on fair monetary reimbursement for the affected trees.

6. Compliance with Laws

Whirlpool shall comply promptly and fully with all present and future laws and regulations in connection with its work hereunder.

7. Construction and Intention

This Access Agreement is intended to be and shall be construed as a grant of temporary right of access and not an interest in the Premises.

8. Relationship of Parties

Nothing contained in this Access Agreement shall be deemed or construed by the parties, or any third party, as creating the relationship of principal and agent or of partnership or of joint venture between Licensor and Whirlpool, it being understood and agreed that no provision contained in this Access Agreement, nor any acts of the parties shall be deemed to create any relationship between the parties hereto other than the relationship of Licensor and Licensee.

9. No Admission of Liability

This Agreement does not and shall not constitute an admission of liability or responsibility for or with respect to conditions on the Premises. Whirlpool specifically denies any such liability or responsibility.

10. Captions.

The captions in this Agreement are for convenience only and shall not be deemed to be a part hereof.

11. Governing Law

This Agreement shall be governed and construed in accordance with the laws of the State of Ohio. Any action to enforce the terms of this Agreement shall be brought in an appropriate court in Sandusky County, Ohio.

12. Amendment

This Agreement may not be modified or amended except by a written agreement duly executed by the parties hereto or by their respective successors or assigns, as the case may be.

13. Entire Agreement

This Agreement fully sets forth all agreements and understandings of the parties to this Agreement with respect to the matter hereof.

14. This Agreement, and all rights granted hereunder, shall terminate upon completion of the work hereunder or March 1, 2002, whichever shall occur first.

IN WITNESS WHEREOF, the parties have executed this Access Agreement on the day and year first above written.

LINCENSOR

By: Ronald N Grover
Printed Name: Ronald N Grover
Cynthia M Grover

Title: _____

Date: 12-08-2001

WHIRLPOOL CORPORATION

By: [signature]
Printed Name: MARK T DeLGarbino

Title: Sr. Environmental Engineer

Date: 12-10-01

TEMPORARY ACCESS EASEMENT

KNOW ALL MEN BY THESE PRESENTS: THAT EDWARD J. KARR, unmarried, of Sandusky County, Ohio, for valuable consideration paid, grants to WHIRLPOOL CORPORATION, a Delaware corporation ("Grantee"), a temporary exclusive easement for purposes of ingress and egress, and for all customary private road purposes (the "Easement"), on, over, and across that portion of Grantor's real property located in Sandusky County, Ohio and more particularly described in EXHIBIT A attached hereto as a part hereof ("Grantor's Property") which is shown outlined and cross-hatched on the map attached hereto as EXHIBIT B and made a part hereof by this reference (the "Easement Area") for the purpose of providing Grantee, its agents, employees and contractors, with access to the adjoining property owned by Ronald and Cynthia Grover (the "Grovers") so as to facilitate Grantee's exercise of its rights and performance of its obligations pursuant to a certain unrecorded Site Access Agreement with the Grovers (the "Site Access Agreement").

1. Road. The rights granted hereunder shall include, without limitation, the right to establish and maintain a dirt road through the Easement Area for the passage of motor vehicles (the "Road"). Upon the expiration of the Easement, Grantee, at its sole cost and expense, shall remove the Road and restore any damage to the Easement Area caused thereby. Grantee shall be permitted to use such additional portions of Grantor's Property as may be reasonably required to install the Road in the Easement Area and remove it therefrom.

2. Building Restriction. No buildings or other structures shall be constructed in the Easement Area by Grantor, nor shall Grantor cause any excavating or filling to be done which, in the reasonable judgment of Grantee, would impair Grantee's exercise of the rights granted by this Temporary Access Easement.

3. Title. Grantor covenants with Grantee that Grantor is the owner of the Easement Area and has full power to convey the rights conveyed by this Easement. Grantor warrants and will defend the same against the claims of all persons, subject, however, to (a) all legal highways, (b) easements, covenants and restrictions of record, (c) real estate taxes and assessments not yet due and payable and (d) zoning, building and other applicable laws, codes and regulations.

4. Expiration. The Easement and other rights granted to Grantee hereunder shall expire upon completion of the work to be performed by Grantee under the Site Access Agreement and shall be of no further force or effect after that date.

Prior Instrument Reference: Deed Volume 333, Page 036,
Sandusky County, Ohio Records.

WITNESS the execution hereof as of this 9th day of DECEMBER, 2001.

Signed and Acknowledged
in the Presence of:

1) Richard L. Sawyer
Name: Richard L. Sawyer

Edward J. Karr
Edward J. Karr

2) Joe C. King
Name: Joe C. King

STATE OF OHIO)
) SS:
COUNTY OF SANDUSKY)

The foregoing instrument was acknowledged before me this 9 day of December, 2001 by Edward J. Karr, unmarried.

3) Sandra M. DeNudt
Notary Public

SANDRA M. DENUDT
Notary Public, State of Ohio
My Commission Expires 1-25-2002

EXHIBITS

Exhibit A – Legal Description of Grantor's Property
Exhibit B – Map of Easement Area

This Instrument Prepared By:

Steven J. Davis, Esq.
Thompson Hine LLP
2000 Courthouse Plaza, N.E.
Dayton, Ohio 45402

216967.2

EXHIBIT A

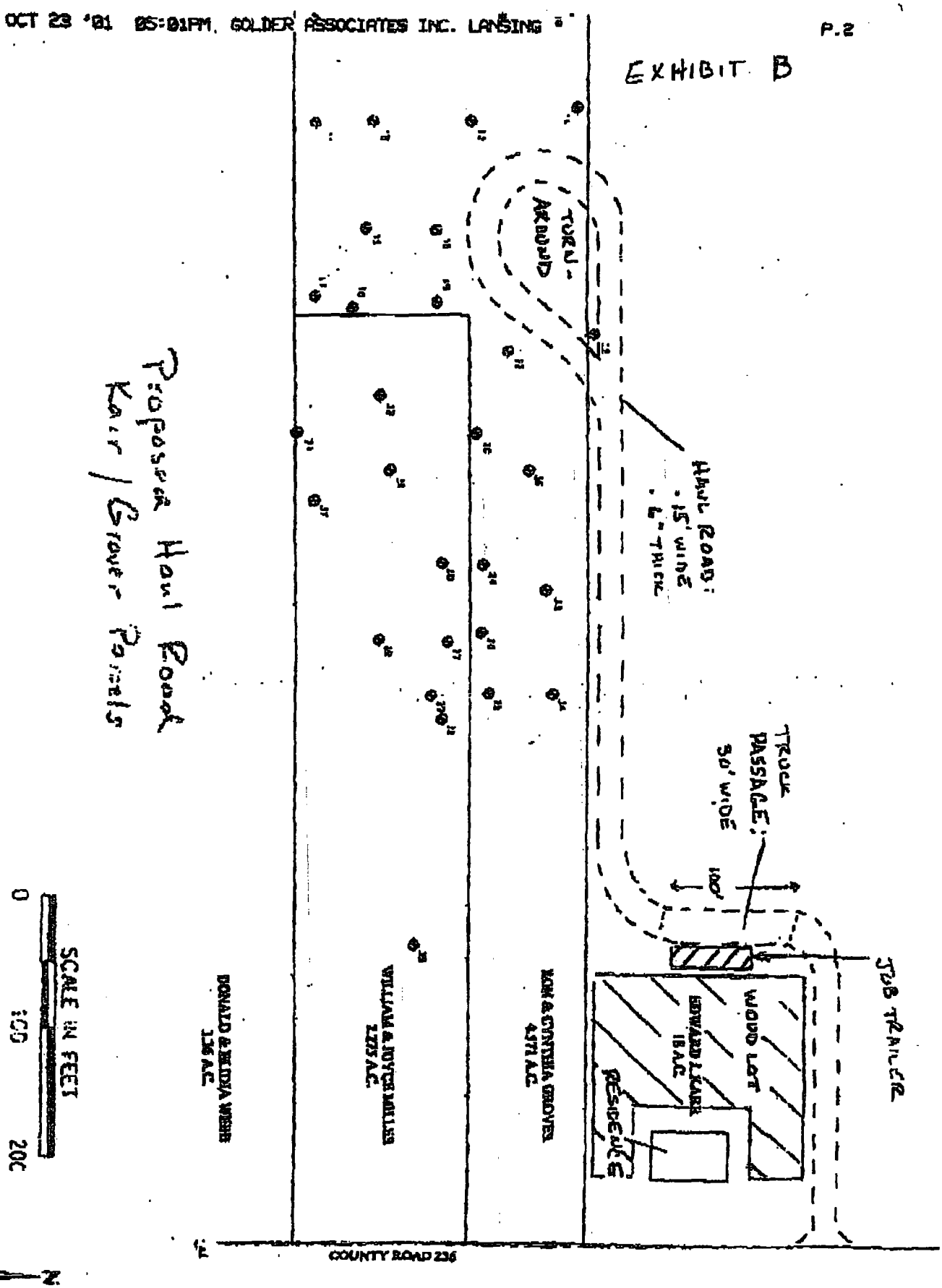
LEGAL DESCRIPTION/GRANTOR'S PROPERTY

Situate in the Township of Green Creek, County of Sandusky and State of Ohio and known as Eighteen (18) acres off of Lot Number One (1) in Plat (A) in partition proceedings in Common Pleas Court of Sandusky County, Ohio, in Case No. 9111, L.C. Grover vs. E.P. Gruver, et al., and being Eighteen (18) acres off of the North end of premises described in Deed recorded in Volume 71 at Page 89 and Page 90, Sandusky County, Ohio Deed Records. Said land being located in the Northwest Quarter of Section No. Twenty-Two (22), said Township, County and State.

2169672

EXHIBIT B

Proposed Haul Road
Kerr / Glover Parcels



SITE ACCESS AGREEMENT

This Access Agreement is made this 9th day of January, 2002, by and between Don Webb, having an address of **1690 County Road 236 Clyde, Ohio** (hereinafter referred to as "Licensor"), and Whirlpool Corporation, an Ohio corporation having an address at 119 Birdseye Street, Clyde, Ohio (hereinafter referred to as "Whirlpool").

WHEREAS, Licensor is the owner of certain real property located at **1690 County Road 236 Clyde, Ohio** (hereinafter referred to as "the Premises"); and

WHEREAS, Whirlpool is willing to investigate and remediate certain conditions on the Premises; and

WHEREAS, Licensor acknowledges the benefit of Whirlpool's investigation and remediation of such conditions;

NOW, THEREFORE, the parties hereby agree as follows:

1. Grant of Access

Licensor hereby grants to Whirlpool, its employees, contractors, agents, consultants, designees and representatives, a temporary right and license to enter upon the Premises at reasonable times in order to investigate and remediate, in a manner not inconsistent with Ohio EPA's Voluntary Action Program, certain conditions on the western portion of the Premises, as shown on the attached Exhibit. This Agreement also grants Whirlpool the right to use the Premises to access to adjacent property from the Premises if Whirlpool has a separate access agreement with any such adjacent property owner.

2. Non-Interference with Licensor's Use

In exercising its rights under this Agreement, Whirlpool shall, at all times, conduct its activities in such a way as to not unreasonably interfere with the activities or operations of Licensor or with other authorized uses of the Premises and shall honor all reasonable instructions and requests which are made to them by Licensor or other appropriate parties.

3. Indemnity

Whirlpool covenants and agrees to save and keep harmless and indemnify Licensor and its successors and assigns, from and against any and all liabilities, losses, damages, costs, expenses, causes of action, suits, penalties, claims, demands, and judgments of every kind and nature, including without limitation, reasonable attorneys fees and expenses for (1) any personal injury; (2) property damage to any building, structure, fixture, parking area or landscaping; and (3) environmental investigation or remediation and/or waste disposal costs or obligations resulting or arising solely from Whirlpool's activities hereunder.

4. Threats to Human Health or the Environment

If any time during the performance of the work hereunder, Whirlpool or its agents discover any incident or condition which creates an emergency or danger to the health or safety of persons on or adjacent to the Premises, Whirlpool shall promptly notify Licensor of such incident or condition. If Licensor discovers any such condition it shall promptly notify Whirlpool.

5. Restoration

Upon conclusion of its work, Whirlpool shall exercise reasonable measures to restore the Premises to the conditions existing prior to conduct of such work and in accordance with all applicable requirements. Subject to unforeseen conditions or requirements, Whirlpool contemplates that the restoration shall consist of the following:

- Waste Removal. Whirlpool will remove the residuals that exist at and/or below ground level as have been previously identified. If additional pockets of similar residuals are encountered during removal, they will also be removed.

- Backfill excavated areas with clean fill. The areas to be excavated will be backfilled with sand that is similar in texture to that found elsewhere on the properties. The sand will be obtained from a source that has been documented to be free from contamination. Because of the sandy texture and expected low-nutrient content of the fill, the vegetative cover will consist of six inches of topsoil. Construction areas will be reseeded with a mixture that is appropriate for site-specific conditions (e.g., full sun, well-drained substrate).

- Grade the effected portions of the Premises. At the completion of construction, the excavated areas will be backfilled to eliminate abrupt topographic peaks and depressions. In doing so, the final land surface elevations at the property boundaries will be at least equal in elevation to the adjacent properties.

- Replace excavated/damaged field tiles and clean-outs. If field tiles are encountered within the extent of excavation and/or within adjacent soils that may need to be regraded, these tiles will be replaced. Clean-outs will be installed if they are present within sections of tiles to be replaced. Tiles that discharge directly to South Creek will be replaced, provided that the discharge is permissible under the authority of the Sandusky County Engineer and/or Drain Commissioner.

6. Compliance with Laws

Whirlpool shall comply promptly and fully with all present and future laws and regulations in connection with its work hereunder.

7. Construction and Intention

This Access Agreement is intended to be and shall be construed as a grant of temporary right of access and not an interest in the Premises.

8. Relationship of Parties

Nothing contained in this Access Agreement shall be deemed or construed by the parties, or any third party, as creating the relationship of principal and agent or of partnership or of joint venture between Licensor and Whirlpool, it being understood and agreed that no provision contained in this Access Agreement, nor any acts of the parties shall be deemed to create any relationship between the parties hereto other than the relationship of Licensor and Licensee.

9. No Admission of Liability

This Agreement does not and shall not constitute an admission of liability or responsibility for or with respect to conditions on the Premises. Whirlpool specifically denies any such liability or responsibility.

10. Captions

The captions in this Agreement are for convenience only and shall not be deemed to be a part hereof.

11. Governing Law

This Agreement shall be governed and construed in accordance with the laws of the State of Ohio. Any action to enforce the terms of this Agreement shall be brought in an appropriate court in Sandusky County, Ohio.

12. Amendment

This Agreement may not be modified or amended except by a written agreement duly executed by the parties hereto or by their respective successors or assigns, as the case may be.

13. Entire Agreement

This Agreement fully sets forth all agreements and understandings of the parties to this Agreement with respect to the matter hereof.

14. This Agreement, and all rights granted hereunder, shall terminate upon completion of the work hereunder or April 1, 2002, whichever shall occur first.

IN WITNESS WHEREOF, the parties have executed this Access Agreement on the day and year first above written.

LINCENSOR

By: Donald Webb

Printed Name: Donald Webb

Title: Land Owner

Date: 1-9-2002

WHIRLPOOL CORPORATION

By: [signature]

Printed Name: Mark T. DelGarbino

Title: SR. Environmental Engineer

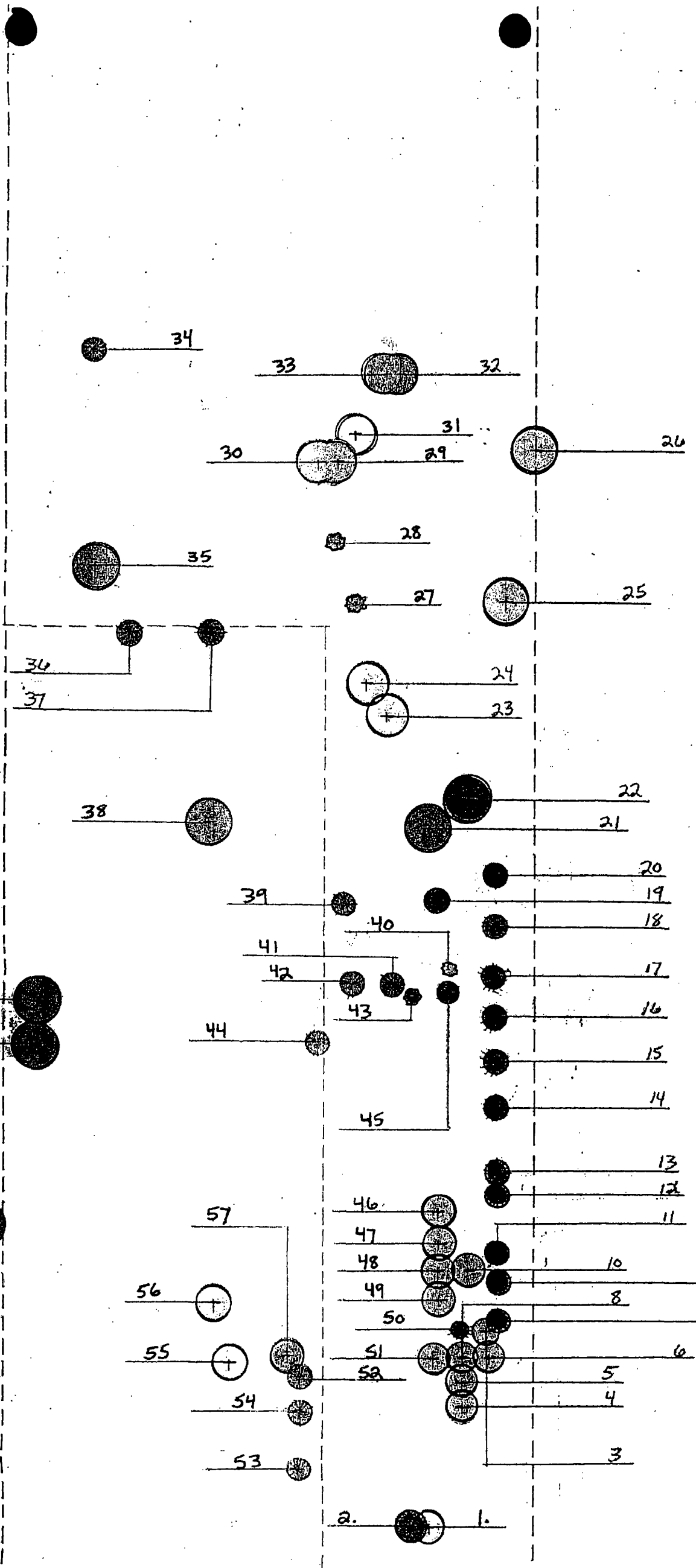
Date: 1-9-2002

Appendix B

Appendix B

Tree Inventory

Appendix C



Plant Material Legend
Austrian Pine
Spruce
Japanese Black Pine
Cottonwood
Box Elder
Willow
Crabapple
Cherry
Fruit Trees
Honeysuckle
Rose
Grey Dogwood
Red Cedar

Barnes nursery inc.

3511 West Cleveland Rd.
Huron, Ohio 44839
(419) 433-5525 1-800-421-8722
Fax Phone
(419) 433-3555

Catawba Garden Center
1263 N.E. Catawba Rd., Port Clinton, OH 43452
(419) 797-9797

Professional Affiliations

Ohio Nursery & Landscape Association
Michigan Association of Nurserymen
American Association of Nurserymen
National Landscape Association
International Society of Arboriculture

Appendix C

Pre-Removal Photographs

Photo 1: Area 1- View to the south along creek bank. (GAI Photo DPR1)

Photo 2: Area 1- View to the east-northeast from western-central area. (GAI Photo DPR2)

Photo 3: Area 1- View to the east from the southeast. (GAI Photo DPR3)

Photo 4: Area 1- View to the southwest from the eastern edge. (GAI Photo DPR4)

Photo 5: Area 1- View to the northwest from the eastern edge. (GAI Photo DPR5)

Photo 6: Area 1- View to the west along the south property line. (GAI Photo Dcp-686)

Photo 7: Area 1- View to the east from the west. (GAI Photo Dcp-687)

Photo 8: Area 1- View to the northeast from the west. (GAI Photo Dcp-688)

Photo 9: Area 1- View to the north from the southwest corner. (GAI Photo Dcp-689)

Photo 10: Area 1- View to the southwest form north property line. (GAI Photo Dcp-690)

Photo 11: Area 1- View to the south from the north property line. (GAI Photo Dcp-691)

Photo 12: Area 1- View to the east along north property line. (GAI Photo Dcp-692)

Photo 13: Area 2- View to the east-northeast from Area 1. (GAI Photo Dcp-648)

Photo 14: Area 2- View to the west from the east. (GAI Photo Dcp-649)

Photo 15: Area 2- View to the west from the east of Grover property. (GAI Photo Dcp-651)

Photo 16: Area 2 - View to the west-southwest from east part Grover property (GAI Photo DCP-654)

Photo 17: Area 2- View to the southwest, including pile of tires. (GAI Photo Dcp-662)

Photo 18: Area 2- View to the northwest, include pile of tires. (GAI Photo Dcp-663)

Photo 19: Area 2- View to the north from Miller south property line. (GAI Photo Dcp-665)

Photo 20: Area 2- View to the west along south Miller property line. (GAI Photo Dcp-666)

Photo 21: Area 2- View to the north of west portion Area 2. (GAI Photo Dcp-667)

Photo 22: Area 2- View to the northwest of west portion Area 2. (GAI Photo-669)

Photo 23: Area 2- View to the north from the southwest corner. (GAI Photo Dcp-670)

Photo 24: Area 2- View to the northeast from the southwest corner. (GAI Photo Dcp-672)

Appendix D

Appendix D

Removal Photographs

Photo 1: Area 1- View to the east from northwest corner. (GAI Photo Dcp-729)

Photo 2: Area 1- View to the southeast from northwest corner. (GAI Photo Dcp-730)

Photo 3: Area 1- View to the south from the northwest corner. (GAI Photo Dcp-731)

Photo 4: Area 1- View of silt fence to the north. (GAI Photo Dcp-706)

Photo 5: Area 1- View to the north from south property line. (GAI Photo Dcp-735)

Photo 6: Area 1- View to the east from the southwest corner. (GAI Photo Dcp-736)

Photo 7: Area 1- View to the east from near creek. (GAI Photo Dcp-737)

Photo 8: Area 1- View to the east from the northwest portion. (GAI Photo Dcp-738)

Photo 9: Area 1- View to the southeast from the northwest portion. (GAI Photo Dcp-739)

Photo 10: Area 1- View to the south from the northwest corner. (GAI Photo Dcp-740)

Photo 11: Area 1- View to the south from the northwest corner. (GAI Photo Dcp-741)

Photo 12: View to the north from the south property line. (GAI Photo Dcp-744)

Photo 13: Area 1- View to the northeast from the center of property. (GAI Photo Dcp-745)

Photo 14: Area 1- View to the west from the southeast corner. (GAI Photo Dcp-750)

Photo 15: Area 1- View to the northwest from the southeast corner. (GAI Photo Dcp-751)

Photo 16: View to the north from the south property line. (GAI Photo Dcp-752)

Photo 17: Area I- View from north of the southeast corner. (GAI Photo Dcp-754)

Photo 18: Area 1- View to the northeast from the southeast corner. (GAI Photo Dcp-755)

Photo 19: Area 1- View of the northeast corner. (GAI Photo Dsp-756)

Photo 20: Area 1- View to the west along north property line. (GAI Photo Dcp-703)

Photo 21: Area 2- View to the southwest of eastern portion. (GAI Photo Dcp-759)

Photo 22: Area 2- View to the west of the eastern portion. (GAI Photo Dcp-760)

Photo 23: Area 2- View to the northwest from the southeast corner. (GAI Photo Dcp-761)

Photo 24: Area 2- View to the northeast from the south property line. (GAI Photo Dcp-763)

Photo 25: Area 2- View to the northwest from the southeast corner. (GAI Photo Dcp-774)

Photo 26: Area 2- View to the west-northwest from the east of area. (GAI Photo Dcp-775)

Photo 27: Area 2- View to the north from the south edge of excavation. (GAI Photo Dcp-776)

Photo 28: Area 2- View to the southeast from the northwest corner. (GAI Photo Dcp-777)

Photo 29: Area 2- View to the east from the northwest corner. (GAI Photo Dcp-779)

Photo 30: Area 2- View to north of residuals imbedded in overburden. (GAI Photo Dcp-767)

Photo 31: Area 2- View to the west down the south property. (GAI Photo Dcp-787)

Photo 32: Area 2- View to the north from the south Miller property line. (GAI Photo Dcp-825)

Photo 33: Area 2- View to the northeast from the southwest corner. (GAI Photo Dcp-827)

Photo 34: Area 2- View to the northwest from the south property line. (GAI Photo Dcp-828)

Photo 35: Area 2- View to the east from southwest corner. (GAI Photo Dcp-829)

Photo 36: Area 2- View to the southeast from the northwest corner. (GAI Photo Dcp-830)

Photo 37: Area 2- View to the northwest from the southeast corner. (GAI Photo Dcp-835)

Photo 38: Area 2- View to the northeast from the south property line. (GAI Photo Dcp-838)

Photo 39: Area 2- View to the north from the south property line. (GAI Photo Dcp-839)

Photo 40: Area 2- View to the southwest from the northeast corner. (GAI Photo Dcp-819)

Appendix E

Appendix E

Post-Removal Photographs

Photo 1: Area 1 - View to the north of South Creek from south property line. (GAI Photo Dcp-877)

Photo 2: Area 1- View to the south of South Creek from north property line. (GAI Photo Dcp-880)

Photo 3: Area 1- View to the west along Grover north property line. (GAI Photo Dcp-919)

Photo 4: Area 1- View to the east from the northwest corner. (GAI Photo Dcp-920)

Photo 5: Area 1- View to the southeast from the northwest corner. (GAI Photo Dcp-921)

Photo 6: Area 1- View to the east from the western edge. (GAI Photo Dcp-922)

Photo 7: Area 1- View of new fence to the east along south property line. (GAI Photo Dcp-923)

Photo 8: Area 1- View to the east-northeast from the southwest corner. (GAI Photo Dcp-925)

Photo 9: Area 1- View to west of restored Webb excavation. (GAI Photo Dcp-912)

Photo 10: Area 1- View to the northwest from the Webb property. (GAI Photo Dcp-836)

Photo 11: Area 1- View to the west from the east. (GAI Photo Dcp-910)

Photo 12: Area 2- View to the southwest from the northeast. (GAI Photo Dcp-907)

Photo 13: Area 2- View to the north-northwest from the south. (GAI Photo Dcp-913)

Photo 14: Area 2- View to the east-northeast from the south. (GAI Photo Dcp-914)

Photo 15: Area 2- View to the north from the Miller southwest corner. (GAI Photo Dcp-915)

Photo 16: Area 2- View to the east from the western edge. (GAI Photo Dcp– Pic-917)

Photo 17: Area 2- View to the east from the northwest corner. (GAI Photo Dcp-918)

Photo 18: Area 2- View to the northwest from the southwest corner. (GAI Photo Dcp-909)

Photo 19: Area 2- View to the east from the south-cental portion. (GAI Photo Dcp-876)

Photo 20: Area 2- View to the northwest from the southwest corner. (GAI Photo Dcp-874)

Photo 21: Area 2- View to the southwest of removed haul road on Karr property. (GAI Photo Dcp-905)

Photo 22: Restored Karr property; view to the north. (GAI Photo Dcp-927)

Appendix F

Appendix F

Verification Soil Sample Analytical Reports

Analytical Laboratory Report

R[illegible]t ID: S08193.01(02)
[illegible]d on 01/29/2002

Report to
Attention: Mr. Dave Regalbuto
Golder Associates
16821 Wood Rd.
Lansing, MI 48906

Phone: 517-482-2262 FAX: 517-482-2460

Report produced by
Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary
Lab Sample ID(s): S08193.01-S08193.16
Project: Metals Analysis
Submitted Date/Time: 01/25/2002 12:00
Sampled by: J. Garrett
P.O. #:

Report Notes
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
Results relate only to items tested.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Merit Laboratories, Inc.

I mple ID: S08193.01
S ag: GM1-01
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	85.8	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	3,700	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	6.01	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	1,050	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	400	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.52	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	14.8	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
C alt	111	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
	21.1	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nickel	186	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	7.69	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	372	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

Sample ID: S08193.02
Sample Tag: GM1-02
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	91.5	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	2,430	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	3.37	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	121	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	4.4	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.11	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	5.0	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	12.4	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[illegible]	5.8	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nickel	32.6	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	5.31	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	51.6	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

L· ·mple ID: S08193.03
S [redacted]ag: GM1-03
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	87.4	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	2,440	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.75	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	20.5	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	Not detected	mg/kg	2.00	6020	01/28/02	PER	7440--42-8	
Cadmium	0.09	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	3.8	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	2.94	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	4.9	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nick[redacted]	7.54	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	5.15	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	15.7	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

Lab Sample ID: S08193.04
Sample Tag: GM1-04
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	83.7	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	5,860	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.29	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	55.4	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	356	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.10	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	7.4	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	6.62	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	9.6	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nickel	12.3	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	8.54	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	29.8	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

L[illegible]mple ID: S08193.05
S[illegible]Tag: GM1-05
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	83.8	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	4,980	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.55	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	56.7	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	445	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.33	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	7.1	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
C[illegible]alt	4.08	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[illegible]	8.6	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nic[illegible]	8.68	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	12.8	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	30.6	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

Sample ID: S08193.06
Sample Tag: GM1-06
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	83.1	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	2,050	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.68	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	14.4	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	197	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.10	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	3.3	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	1.84	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
Copper	2.8	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nickel	5.23	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	5.89	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	15.1	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

Sample ID: S08193.07
Sample Tag: GM1-07
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	87.8	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	3,800	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.72	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	31.8	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	369	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.14	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	5.1	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	3.04	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[illegible]	5.2	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nickel	6.50	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	8.04	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	18.3	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

Sample ID: S08193.08
Tag: GM1-08
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	85.7	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	3,090	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.01	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	18.5	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	203	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	5.2	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	3.00	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	4.4	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nickel	9.03	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	5.58	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	26.6	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Merit Laboratories, Inc.

Analytical Laboratory Report

Sample ID: S08193.09
Tag: GM1-09
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	86.3	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	2,370	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	0.62	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	25.2	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	92.4	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.05	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	3.4	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	2.38	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	3.6	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nickel	4.82	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	5.68	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	16.2	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08193.10
[redacted] Tag: GM1-10
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	90.7	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	2,380	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	2.22	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	15.9	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	Not detected	mg/kg	2.00	6020	01/28/02	PER	7440--42-8	
Cadmium	0.07	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	3.7	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	3.40	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	5.3	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
[redacted]	8.06	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	5.11	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	17.4	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

mple ID: S08193.11
Tag: GM1-11
d Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	91.2	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	3,060	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.79	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	41.7	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	2.0	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.08	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	3.63	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	7.84	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	6.0	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
Nic[redacted]	11.2	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	5.26	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	17.6	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

Sample ID: S08193.12
Tag: GM1-12
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	91.1	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	2,050	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.91	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	63.6	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	14.8	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.07	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	3.16	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	8.07	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	4.4	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
[redacted]	10.5	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	4.70	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	23.5	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08193.13
[redacted] Tag: GM2-01
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	93.0	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	1,110	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.64	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	10.4	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	Not detected	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	2.1	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	2.27	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	2.8	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
[redacted]	6.40	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	3.22	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	13.1	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

Sample ID: S08193.14
Tag: GM2-02
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	87.9	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	2,660	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	0.64	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	21.8	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	Not detected	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	2.3	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	1.65	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	2.6	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
[redacted]	2.72	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	2.88	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	6.2	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

mple ID: S08193.15
Tag: GM2-03
Co d Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	91.7	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	1,620	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	3.82	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	26.8	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	12.3	mg/kg	2.00	6020	01/28/02	PER	7440--42-8	
Cadmium	0.07	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	3.5	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	3.65	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	3.15	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
[redacted]	11.6	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	5.10	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	16.2	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Analytical Laboratory Report

Merit Laboratories, Inc.

Sample ID: S08193.16
Tag: GM2-04
Collected Date/Time: 01/24/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/28/02	EMIL		
Inorganics								
Total Solids	79.0	%	1	160.3	01/27/02	MKH		
Metals								
Aluminum	1,150	mg/kg	0.5	6020	01/28/02	PER	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/28/02	EMIL	7440-36-0	
Arsenic	1.47	mg/kg	0.50	6020	01/28/02	EMIL	7440-38-2	
Barium	89.9	mg/kg	1.0	6020	01/28/02	EMIL	7440-39-3	
Boron	99.2	mg/kg	2.00	6020	01/28/02	PER	7440-42-8	
Cadmium	0.07	mg/kg	0.05	6020	01/28/02	EMIL	7440-43-9	
Chromium	4.6	mg/kg	1.0	6020	01/28/02	EMIL	7440-47-3	
Cobalt	11.2	mg/kg	0.10	6020	01/28/02	EMIL	7440-48-4	
[redacted]	4.3	mg/kg	1.0	6020	01/28/02	EMIL	7439-92-1	
[redacted]	28.5	mg/kg	0.50	6020	01/28/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/28/02	EMIL	7440-22-4	
Vanadium	3.78	mg/kg	0.50	6020	01/28/02	EMIL	7440-62-2	
Zinc	48.1	mg/kg	1.0	6020	01/28/02	EMIL	7440-66-6	

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: Dave Regalbuto
ADDRESS: 6821 Wood Road
CITY: Lansing | STATE: MI | ZIP CODE: 48906
P.O. NO. | PHONE NO.: 517-482-2562 | FAX NO.: 517-482-2460

REPORT TO

NAME: Dave Regalbuto
ADDRESS: 6821 Wood Road
CITY: Lansing | STATE: MI | ZIP CODE: 48906
PHONE NO.: 517-482-2562 | FAX NO.: 517-482-2460

PROJECT NO.: ~~913-8354~~ | CLIENT: 993-8534.0003
SAMPLER (SIGNATURE): James Garrett (DKR) | SAMPLER - PLEASE PRINT NAME: James Garrett
AFFILIATION: Golder

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: Plastic Bag

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ____

CODE: A = NONE; B = HNO_3; C = H_2SO_4; D = NaOH; E = HCL; F - ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: 2002 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
8193 01	1/24		Gm1-01	1	X
02			Gm1-02		
03			Gm1-03		
04			Gm1-04		
05			Gm1-05		
06			Gm1-06		
07			Gm1-07		
08			Gm1-08		
09			Gm1-09		
10			Gm1-10		
11			Gm1-11		
12			Gm1-12		
13			Gm2-01		
14			Gm2-02		
15			Gm2-03		

Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, lead, nickel, silver, vanadium, zinc

RELINQUISHED BY: SIGNATURE: David Regalbuto	DATE: 1-25-02	TIME: 11:45	
RECEIVED BY: SIGNATURE	DATE: 1-25-02	TIME: 11:45	
RELINQUISHED BY: SIGNATURE	DATE	TIME	
RECEIVED BY: SIGNATURE	DATE	TIME	

RELINQUISHED BY: SIGNATURE	DATE: 1-25-02	TIME: 12:00	
RECEIVED AT FECL BY: SIGNATURE	DATE: 1-25-02	TIME: 12:00	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: Dave Regalbuto
ADDRESS: 15821 Wood Rd.
CITY: Lansing | STATE: MI | ZIP CODE: 48906
P.O. NO.: | PHONE NO.: 517-482-2262 | FAX NO.: 517-482-2460

REPORT TO

NAME: SAME AS LEFT
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.: ~~813-8354~~ | CLIENT: 993-8534.0003
SAMPLER (SIGNATURE): James Garrett (D/R) | SAMPLER - PLEASE PRINT NAME: JAMES GARRETT
AFFILIATION: Golder

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: Plastic Bag

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ____

CODE: A = NONE, B = HNO_3, C = H_2SO_4, D = NaOH, E = HCL, F - ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: 2002 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
16	1/24		GW2-04	1	X — See Page 1

RELINQUISHED BY: SIGNATURE	David Regalbuto	DATE 1-25-02	TIME 11:45	RELINQUISHED BY: SIGNATURE	DATE 1-25-02	TIME 12:00
RECEIVED BY: SIGNATURE		DATE 1-25-02	TIME 11:45	RECEIVED AT FECL BY: SIGNATURE	DATE 1-25-02	TIME 12:00
RELINQUISHED BY: SIGNATURE		DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
RECEIVED BY: SIGNATURE		DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr. Ste 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: Dave Regalbuto
ADDRESS: 16821 Wood Road
CITY: Lansing | STATE: MI | ZIP CODE: 48906
P.O. NO. | PHONE NO.: 517-482-2460 | FAX NO.: 517-482-2460

REPORT TO

NAME: Dave Regalbuto
ADDRESS: 16821 Wood Road
CITY: Lansing | STATE: MI | ZIP CODE: 48906
PHONE NO.: 517-482-2460 | FAX NO.: 517-482-2460

PROJECT NO.: ~~512-8534~~ | CLIENT: 993-8534.0003
SAMPLER (SIGNATURE): James Garrett (DKR) | SAMPLER - PLEASE PRINT NAME: James Garrett
AFFILIATION: Golder

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: Plastic Bag

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ____

CODE: A = NONE, B = HNO_3, C = H_2SO_4, D = NaOH, E = HCL, F - ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: 2002 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
8193 01	1124		Gm1-01	1	X — Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, lead, nickel, silver, vanadium, zinc
02			Gm1-02		
03			Gm1-03		
04			Gm1-04		
05			Gm1-05		
06			Gm1-06		
07			Gm1-07		
08			Gm1-08		
09			Gm1-09		
10			Gm1-10		
11			Gm1-11		
12			Gm1-12		
13			Gm2-01		
14			Gm2-02		
15			Gm2-03		

RELINQUISHED BY: SIGNATURE: David Regalbuto	DATE: 1-25-02	TIME: 11:45	RELINQUISHED BY: SIGNATURE	DATE: 1-25-02	TIME: 12:00
RECEIVED BY: SIGNATURE	DATE: 1-25-02	TIME: 11:45	RECEIVED AT FECL BY: SIGNATURE	DATE: 1-25-02	TIME: 22:00
RELINQUISHED BY: SIGNATURE	DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
RECEIVED BY: SIGNATURE	DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

NOTES: TEMP. ON ARRIVAL ____

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: Dave Regalbuto
ADDRESS: 16821 Wood Rd
CITY: Lansing | STATE: MI | ZIP CODE: 48906
P.O. NO.: | PHONE NO.: 517-482-2262 | FAX NO.: 517-482-2460

REPORT TO

NAME: SAME AS LEFT
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.: ~~013-8354~~ | CLIENT: 993-8534.0003
SAMPLER (SIGNATURE): James Garrett (DFR) | SAMPLER - PLEASE PRINT NAME: JAMES GARRETT
AFFILIATION: Golder

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: Plastic Bag

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER _____

CODE: A = NONE, B = HNO_3, C = H_2SO_4, D = NaOH, E = HCL, F - _____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: 2002 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
16	1/24		GM2-04	1	X — See Page 1

RELINQUISHED BY: SIGNATURE: David Regalbuto	DATE: 1-25-02	TIME: 11:45	RELINQUISHED BY: SIGNATURE:	DATE: 1-25-02	TIME: 12:00
RECEIVED BY: SIGNATURE:	DATE: 1-25-02	TIME: 11:45	RECEIVED AT FECL BY: SIGNATURE:	DATE: 1-25-02	TIME: 12:00
RELINQUISHED BY: SIGNATURE:	DATE:	TIME:	SEAL NO.:	SEAL INTACT YES ☐ NO ☐	INITIALS:
RECEIVED BY: SIGNATURE:	DATE:	TIME:	SEAL NO.:	SEAL INTACT YES ☐ NO ☐	INITIALS:

NOTES: TEMP. ON ARRIVAL _____

Analytical Laboratory Report

Report ID: S08228.01(01)
Generated on 02/01/2002

Report to

Attention: Mr. Dave Regalbuto
Golder Associates
16821 Wood Rd.
Lansing, MI 48906

Phone: 517-482-2262 FAX: 517-482-2460

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S08228.01-S08228.14
Project: Metals Analysis
Submitted Date/Time: 01/30/2002 14:00
Sampled by: J. Garrett
P.O. #:

Report Notes

Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
Results relate only to items tested.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Lab Sample ID: S08228.01
ple Tag: WEBB-01
cted Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	88.9	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	2,140	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	2.44	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	22.8	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	2.8	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	0.06	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	3.45	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
Cobalt	3.00	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[illegible]	6.6	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	6.99	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	5.44	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	19.4	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.02
Sample Tag: WEBB-02
Collected Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	80.0	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	4,460	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	3.05	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	44.9	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	13.8	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	0.31	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	6.3	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
Cobalt	4.60	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	9.6	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	9.04	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	9.08	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	34.8	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.03
[redacted]ple Tag: WEBB-03
[redacted]ted Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	83.7	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	3,060	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	1.16	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	24.3	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	21.1	mg/kg	2.0	6020	01/31/02	EMIL	7440--42-8	
Cadmium	0.12	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	4.1	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]alt	2.61	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	4.0	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	6.26	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	5.63	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	18.7	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.04
[redacted]ple Tag: KARR-01
[redacted]cted Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	90.3	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	1,830	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	1.91	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	18.0	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	34.7	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	0.08	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	3.0	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]alt	1.90	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	5.9	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	3.38	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	5.06	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	12.7	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.05
[illegible]ple Tag: KARR-02
[illegible]ed Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	81.7	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	3,690	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	3.93	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	42.5	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	74.6	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	0.28	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	6.0	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[illegible]balt	3.40	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[illegible]	23.1	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nicke[illegible]	6.86	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	10.0	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	42.4	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.06
[redacted]le Tag: KARR-03
[redacted]ted Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	81.8	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	3,940	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	4.29	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	39.6	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	23.7	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	0.26	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	6.2	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]alt	3.38	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	10.6	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	6.65	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	9.81	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	27.3	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.07
[redacted]e Tag: GM2-05
[redacted]ted Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	83.3	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	1,160	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	0.84	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	8.1	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	25.2	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	2.5	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]alt	1.14	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	2.4	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	6.08	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	4.84	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	12.4	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.08
[redacted]le Tag: GM2-06
[redacted]ted Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	84.1	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	1,200	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	0.76	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	7.8	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	23.4	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	2.3	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]balt	2.40	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	3.0	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	7.37	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	4.22	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	13.5	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.09
[redacted]le Tag: GM2-07
[redacted]ted Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	81.9	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	1,280	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	1.56	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	5.9	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	25.9	mg/kg	2.0	6020	01/31/02	EMIL	7440--42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	2.5	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]alt	2.93	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	4.0	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	8.75	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	3.70	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	14.3	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S08228.10
[redacted]le Tag: GM2-08
[redacted]ed Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	94.9	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	1,050	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	2.06	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	9.1	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	Not detected	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	1.9	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]	1.98	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	2.5	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nicke[redacted]	5.53	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	3.14	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	11.0	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S08228.11
[redacted]le Tag: GM2-09
[redacted]ed Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	90.8	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	2,320	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	2.49	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	16.8	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	Not detected	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	3.7	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]	3.76	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	4.7	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	10.5	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	5.34	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	19.5	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.12
[redacted]le Tag: GM2-10
[redacted]ed Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	92.0	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	1,760	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	0.84	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	14.3	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	Not detected	mg/kg	2.0	6020	01/31/02	EMIL	7440--42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	2.3	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]	1.51	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	3.2	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	2.47	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	3.56	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	7.4	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.13
Tag: GM2-11
Collected Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	91.2	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	3,410	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	1.68	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	18.2	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	Not detected	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	5.0	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]	4.08	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
[redacted]	6.0	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	14.3	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	7.12	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	15.4	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Analytical Laboratory Report

Lab Sample ID: S08228.14
[redacted]e Tag: GM2-12
[redacted]ected Date/Time: 01/29/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	01/31/02	EMIL		
Inorganics								
Total Solids	84.0	%	1	160.3	01/30/02	MKH		
Metals								
Aluminum	1,240	mg/kg	0.5	6020	01/31/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	01/31/02	EMIL	7440-36-0	
Arsenic	0.89	mg/kg	0.50	6020	01/31/02	EMIL	7440-38-2	
Barium	16.9	mg/kg	1.0	6020	01/31/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	01/31/02	EMIL	7440-41-7	
Boron	52.5	mg/kg	2.0	6020	01/31/02	EMIL	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	01/31/02	EMIL	7440-43-9	
Chromium	2.8	mg/kg	1.0	6020	01/31/02	EMIL	7440-47-3	
[redacted]	2.58	mg/kg	0.10	6020	01/31/02	EMIL	7440-48-4	
	2.8	mg/kg	1.0	6020	01/31/02	EMIL	7439-92-1	
Nickel	7.20	mg/kg	0.50	6020	01/31/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	01/31/02	EMIL	7440-22-4	
Vanadium	4.46	mg/kg	0.50	6020	01/31/02	EMIL	7440-62-2	
Zinc	14.4	mg/kg	1.0	6020	01/31/02	EMIL	7440-66-6	

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: Dave Regalbuto - Golder Associates
ADDRESS: 16821 Wood Rd.
CITY: Lansing, MI | STATE: | ZIP CODE: 48906
P.O. NO.: | PHONE NO.: 517-482-2262 | FAX NO.: 517-482-2460

REPORT TO

NAME: Same
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO.: 993-8534.0003 | CLIENT:
SAMPLER (SIGNATURE): James Garrett (DBR) | SAMPLER - PLEASE PRINT NAME: James Garrett
AFFILIATION: Golder Associates

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): Y
BOTTLE TYPE: Plastic 805

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ____

CODE: A = NONE; B = HNO_3; C = H_2SO_4; D = NaOH; E = HCL; F = ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
07	1/29/02		GM2-05	1	X Aluminum, antimony, Arsenic, barium, boron, cadmium, chromium, cobalt, lead, nickel, silver, vanadium, zinc
08			GM2-06		
09			GM2-07		
10			GM2-08		
11			GM2-09		
12			GM2-10		
13			GM2-11		
14			GM3-12		
04			KARR-01		
05			KARR-02		
06			KARR-03		
01			WEBB-01		
02			WEBB-02		
03			WEBB-03		

RELINQUISHED BY: SIGNATURE: James Garrett (DBR)	DATE: 1/29/02	TIME: 1530	
RECEIVED BY: SIGNATURE: Fed Ex - Fremont, OH	DATE: 1/	TIME:	
RELINQUISHED BY: SIGNATURE:	DATE:	TIME:	
RECEIVED BY: SIGNATURE:	DATE:	TIME:	

RELINQUISHED BY: SIGNATURE: Fed Ex - Romulus, MI	DATE: 1/30/02	TIME: ~1330	
RECEIVED AT FECL BY: SIGNATURE:	DATE: 1-31-02	TIME: 1400	
SEAL NO.:	SEAL INTACT YES ☐ NO ☐	INITIALS:	NOTES: TEMP. ON ARRIVAL:
SEAL NO.:	SEAL INTACT YES ☐ NO ☐	INITIALS:	

Analytical Laboratory Report

Report ID: S08233.01(01)
Generated on 02/01/2002

Report to
Attention: Mr. Dave Regalbuto
Golder Associates
16821 Wood Rd.
Lansing, MI 48906

Phone: 517-482-2262 FAX: 517-482-2460

Report produced by
Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary
Lab Sample ID(s): S08233.01
Project: Metals Analysis
Submitted Date/Time: 01/31/2002 15:05
Sampled by: J. Garrett
P.O. #:

Report Notes
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Merit Laboratories, Inc.

Lab Sample ID: S08233.01
Sample Tag: GM2-13
Collected Date/Time: 01/30/2002
Matrix: Soil
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Ziploc Bag	None	Yes	RT	N/A

Analysis	Results	Units	MDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			varies	02/01/02	EMIL		
Inorganics								
Total Solids	86.6	%	1	160.3	01/31/02	EMIL		
Metals								
Aluminum	745	mg/kg	0.5	6020	02/01/02	EMIL	7429-90-5	
Antimony	Not detected	mg/kg	0.5	6020	02/01/02	EMIL	7440-36-0	
Arsenic	0.67	mg/kg	0.50	6020	02/01/02	EMIL	7440-38-2	
Barium	12.4	mg/kg	1.0	6020	02/01/02	EMIL	7440-39-3	
Beryllium	Not detected	mg/kg	0.50	6020	02/01/02	EMIL	7440-41-7	
Boron	75.1	mg/kg	2.00	6020	02/01/02	EMIL	7440-42-8	
Cadmium	Not detected	mg/kg	0.05	6020	02/01/02	EMIL	7440-43-9	
Chromium	1.4	mg/kg	1.0	6020	02/01/02	EMIL	7440-47-3	
[redacted]	1.44	mg/kg	0.10	6020	02/01/02	EMIL	7440-48-4	
[redacted]	2.8	mg/kg	1.0	6020	02/01/02	EMIL	7439-92-1	
Nickel	5.09	mg/kg	0.50	6020	02/01/02	EMIL	7440-02-0	
Silver	Not detected	mg/kg	0.20	6020	02/01/02	EMIL	7440-22-4	
Vanadium	2.02	mg/kg	0.50	6020	02/01/02	EMIL	7440-62-2	
Zinc	11.4	mg/kg	1.0	6020	02/01/02	EMIL	7440-66-6	

Fire & Environmental Consulting Laboratories, Inc.
One East Complex 1451 East Lansing Dr. Ste 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087

CHAIN OF CUSTODY RECORD

INVOICE TO

NAME: Dave Regalbuto
ADDRESS: 16821 Wood Rd
CITY: Lansing, Mi | STATE: | ZIP CODE: 48906
P.O. NO.: | PHONE NO.: | FAX NO: 517-482-2460

REPORT TO

NAME: Same
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.:

PROJECT NO: 993-8534.0003 | CLIENT: Golder Associates
SAMPLER-(SIGNATURE): James Garritt (DIR) | SAMPLER-PLEASE PRINT NAME: James Garritt
AFFILIATION: Golder

SAMPLE TYPE: GW ☐ WW ☐ SW ☐ SOIL ☒ SLUDGE ☐ OTHER ____

PRESERVATIVE CODE: A
REFRIGERATE (Y/N): N
BOTTLE TYPE: Plastic Bag

CODE: A = NONE, B = HNO_3, C = H_2SO_4, D = NaOH, E = HCL, F - ____

FEC LAB. NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	TOTAL NO. CONTAINERS	ANALYSES
8233.01	1/30/02		GM2-13	1	X Aluminum, antimony, arsenic, barium, boron, cadmium, chromium, cobalt, lead, nickel, silver, vanadium, zinc

RELINQUISHED BY: SIGNATURE: James Garritt (DIR)	DATE: 1/30/02	TIME:	
RECEIVED BY: SIGNATURE: Fed Ex - Fremont, OH	DATE: 1/30/02	TIME:	
RELINQUISHED BY: SIGNATURE: Fed Ex - Lansing, Mi	DATE: 1/31/02	TIME: 1200	
RECEIVED BY: SIGNATURE: David Regalbuto	DATE: 1/31/02	TIME: 12[illegible]	

RELINQUISHED BY: SIGNATURE: David Regalbuto	DATE: 1/31/02	TIME:	
RECEIVED AT FECL BY: SIGNATURE: [signature]	DATE: 1-31-02	TIME: 15:05	

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

Appendix G

Appendix G

Borrow Source Soil Sample Analytical Reports

TestAmerica
INCORPORATED

1/16/02

GOLDER ASSOCIATES INC. 3871
DAVID P. REGALBUTO
16821 WOOD ROAD
LANSING, MI 48906

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project 993-8534.0003 WHR-GMA. The Laboratory Project number is 265973. An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
KARR-01	01-A188217	12/19/01
KARR-02	01-A188218	12/19/01
CITY-01	01-A188219	12/19/01
CITY-02	01-A188220	12/19/01

Report Approved By: Gail A Lage Report Date: 1/ 8/02

TestAmerica
INCORPORATED

ANALYTICAL REPORT

GOLDER ASSOCIATES INC. 3871
DAVID P. REGALBUTO
16821 WOOD ROAD
LANSING, MI 48906

Project: 993-8534.0003
Project Name: WHR-GMA
Sampler: JAMES GARRETT

Lab Number: 01-A188217
Sample ID: KARR-01
Sample Type: Soil
Site ID:

Date Collected: 12/19/01
Time Collected:
Date Received: 12/24/01
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES										
2,4-D	ND	mg/kg	0.1800	0.1667	1	1/ 5/02	0:32	Hardcastle	8151A	9693
2,4,5-T	ND	mg/kg	0.018	0.017	1	1/ 5/02	0:32	Hardcastle	8151A	9693
2,4,5-TP (Silvex)	ND	mg/kg	0.0180	0.0167	1	1/ 5/02	0:32	Hardcastle	8151A	9693
Dalapon	ND	mg/kg	0.360	0.333	1	1/ 5/02	0:32	Hardcastle	8151A	9693
2,4-DB	ND	mg/kg	0.180	0.167	1	1/ 5/02	0:32	Hardcastle	8151A	9693
Dicamba	ND	mg/kg	0.0180	0.0167	1	1/ 5/02	0:32	Hardcastle	8151A	9693
Dichloroprop	ND	mg/kg	0.180	0.167	1	1/ 5/02	0:32	Hardcastle	8151A	9693
Dinoseb	ND	mg/kg	0.0900	0.0830	1	1/ 5/02	0:32	Hardcastle	8151A	9693
MCPA	ND	mg/kg	18.0	16.7	1	1/ 5/02	0:32	Hardcastle	8151A	9693
MCPP	ND	mg/kg	18.0	16.7	1	1/ 5/02	0:32	Hardcastle	8151A	9693
Atrazine	ND	mg/kg	0.104	0.0962	1	1/ 2/02	21:12	Henderson	8141A	49
Simazine	ND	mg/kg	0.104	0.0962	1	1/ 2/02	21:12	Henderson	8141A	49
Pentachlorophenol	ND	mg/kg	0.0180	0.0167	1	1/ 5/02	0:32	Hardcastle	8151A	9693
4-Nitrophenol	ND	mg/kg	0.0180	0.0010	1	1/ 5/02	0:32	Hardcastle	8151A	9693
Propachlor	ND	mg/kg	0.0180	0.0167	1	1/15/02	19:18	Henderson	8081A	6659
Alachlor	ND	mg/kg	0.104	0.096	1	1/ 2/02	21:12	Henderson	8141A	49
Aldrin	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
a-BHC	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
b-BHC	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
d-BHC	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
g-BHC, Lindane	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
4,4'-DDD	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332
4,4'-DDE	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332
4,4'DDT	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332

Sam report continued . . .

ANALYTICAL REPORT

Laboratory Number: 01-A188217
Sample ID: KARR-01
Project: 993-8534.0003

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Dieldrin	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Endosulfan I	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Endosulfan II	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Endosulfan sulfate	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Endrin	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Endrin aldehyde	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Endrin Ketone	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Heptachlor	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Heptachlor epoxide	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Hexachlorobenzene	ND	mg/kg	0.00360	0.00167	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Methoxychlor	ND	mg/kg	0.0180	0.0166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Toxaphene	ND	mg/kg	0.180	0.166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
alpha-Chlordane	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
gamma-Chlordane	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	14:44	Hardcastle	8081A	8332
Azinphos, methyl	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Bolstar	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Chlorpyrifos	ND	mg/kg	0.109	0.101	1	12/29/01	23:50	Carmichael	8141A	9232
Coumaphos	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Demeton-o	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Demeton-s	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Diazinon	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Dichlorvos	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Disulfoton	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Ethoprop	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Fensulfothion	ND	mg/kg	0.218	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Fenthion	ND	mg/kg	0.109	0.101	1	12/29/01	23:50	Carmichael	8141A	9232
Merphos	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Mevinphos	ND	mg/kg	0.218	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Naled	ND	mg/kg	1.09	0.200	1	12/29/01	23:50	Carmichael	8141A	9232
Methylparathion	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Phorate	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Ronnel	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Stirofos	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Tokuthion	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232

report continued . . .

ANALYTICAL REPORT

Laboratory Number: 01-A188217
Sample ID: KARR-01
Project: 993-8534.0003

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichloronate	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Mirex	ND	mg/kg	0.002	0.002	1	1/15/02	19:18	Henderson	8141OA	6659
Trifluralin	ND	mg/kg	0.002	0.002	1	1/15/02	19:18	Henderson	8081A	6659
Dimethoate	ND	mg/kg	0.218	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
EPN	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Malathion	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Monocrotophos	ND	mg/kg	1.09	0.660	1	12/29/01	23:50	Carmichael	8141A	9232
Ethyl parathion	ND	mg/kg	0.109	0.100	1	12/29/01	23:50	Carmichael	8141A	9232
Sulfotep	ND	mg/kg	0.109	0.101	1	12/29/01	23:50	Carmichael	8141A	9232
TEPP	ND	mg/kg	1.09	0.333	1	12/29/01	23:50	Carmichael	8141A	9232
Permethrin	ND	mg/kg	0.00724	0.00670	1	1/15/02	19:18	Henderson	8081A	6659
Picloram	ND	mg/kg	0.0180	0.0010	1	1/ 5/02	0:32	Hardcastle	8151A	9693
% Dry Weight	92.6	%			1	12/27/01	13:27	D. Harris	CLP	6774
Acifluorfen	ND	mg/kg	0.167	0.167	1.	1/ 5/02	0:32	H.Henderson	8151	
Bentazon	ND	mg/kg	0.167	0.167	1.	1/ 5/02	0:32	H.Henderson	8151	
Chloramben	ND	mg/kg	0.167	0.167	1.	1/ 5/02	0:32	H.Henderson	8151	
DCPA	ND	mg/kg	0.167	0.167	1.	1/ 5/02	0:32	H.Henderson	8151	
3,5-Dichlorbenzoic acid	ND	mg/kg	0.167	0.167	1.	1/ 5/02	0:32	H.Henderson	8151	

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
OP Pest	9.90 gm	10.0 ml	12/28/01		D. Harris	3550
Misc OP Pest	10.4 gm	10.0 ml	1/ 2/02		D. Harris	3550
OC Pest	30.0 gm	10.0 ml	12/28/01		D. Harris	3550
Herbicides	30. gm	10.0 ml	1/ 4/02		D. Harris	8151

e report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 01-A188217
Sample ID: KARR-01
Project: 993-8534.0003

Surrogate	% Recovery	Target Range
surr-Bromo-2-nitrobenze	52.	41. - 92.
pest surr-TCMX	80.	36. - 153.
pest surr-DCB	82.	51. - 181.
surr-DCAA	88.	24. - 173.

LABORATORY COMMENTS:

ND - Not detected at the report limit.

- Recovery outside Laboratory historical or method prescribed limits.

All reported results for metals or Organic analyses have been corrected for dry weight.

Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

GOLDER ASSOCIATES INC. 3871
DAVID P. REGALBUTO
16821 WOOD ROAD
LANSING, MI 48906

Project: 993-8534.0003
Project Name: WHR-GMA
Sampler: JAMES GARRETT

Lab Number: 01-A188218
Sample ID: KARR-02
Sample Type: Soil
Site ID:

Date Collected: 12/19/01
Time Collected:
Date Received: 12/24/01
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES										
2,4-D	ND	mg/kg	0.1804	0.1667	1	1/ 5/02	1:04	Hardcastle	8151A	9693
2,4,5-T	ND	mg/kg	0.018	0.017	1	1/ 5/02	1:04	Hardcastle	8151A	9693
2,4,5-TP (Silvex)	ND	mg/kg	0.0180	0.0167	1	1/ 5/02	1:04	Hardcastle	8151A	9693
Dalapon	ND	mg/kg	0.361	0.333	1	1/ 5/02	1:04	Hardcastle	8151A	9693
2,4-DB	ND	mg/kg	0.180	0.167	1	1/ 5/02	1:04	Hardcastle	8151A	9693
Dicamba	ND	mg/kg	0.0180	0.0167	1	1/ 5/02	1:04	Hardcastle	8151A	9693
Dichloroprop	ND	mg/kg	0.180	0.167	1	1/ 5/02	1:04	Hardcastle	8151A	9693
Dinoseb	ND	mg/kg	0.0902	0.0830	1	1/ 5/02	1:04	Hardcastle	8151A	9693
MCPA	ND	mg/kg	18.0	16.7	1	1/ 5/02	1:04	Hardcastle	8151A	9693
MCPP	ND	mg/kg	18.0	16.7	1	1/ 5/02	1:04	Hardcastle	8151A	9693
Atrazine	ND	mg/kg	0.108	0.100	1	1/ 2/02	21:34	Henderson	8141A	49
Simazine	ND	mg/kg	0.108	0.100	1	1/ 2/02	21:34	Henderson	8141A	49
Pentachlorophenol	ND	mg/kg	0.0180	0.0167	1	1/ 5/02	1:04	Hardcastle	8151A	9693
4-Nitrophenol	ND	mg/kg	0.0180	0.0010	1	1/ 5/02	1:04	Hardcastle	8151A	9693
Propachlor	ND	mg/kg	0.0181	0.0167	1	1/15/02	19:47	Henderson	8081A	6659
Alachlor	ND	mg/kg	0.108	0.100	1	1/ 2/02	21:34	Henderson	8141A	49
Aldrin	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
a-BHC	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
b-BHC	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
d-BHC	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
g-BHC, Lindane	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
4,4'-DDD	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332
4,4'-DDE	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332
4,4'DDT	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332

report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 01-A188218
Sample ID: KARR-02
Project: 993-8534.0003

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Dieldrin	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Endosulfan I	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Endosulfan II	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Endosulfan sulfate	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Endrin	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Endrin aldehyde	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Endrin Ketone	ND	mg/kg	0.00360	0.00333	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Heptachlor	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Heptachlor epoxide	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Hexachlorobenzene	ND	mg/kg	0.00360	0.00167	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Methoxychlor	ND	mg/kg	0.0180	0.0166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Toxaphene	ND	mg/kg	0.180	0.166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
alpha-Chlordane	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
gamma-Chlordane	ND	mg/kg	0.00180	0.00166	1	1/ 4/02	15:13	Hardcastle	8081A	8332
Azinphos, methyl	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Bolstar	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Chlorpyrifos	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Coumaphos	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Demeton-o	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Demeton-s	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Diazinon	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Dichlorvos	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Disulfoton	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Ethoprop	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Fensulfothion	ND	mg/kg	0.212	0.100	1	12/30/01	0:12	Carmichael	8141A	9232
Fenthion	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Merphos	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Mevinphos	ND	mg/kg	0.212	0.100	1	12/30/01	0:12	Carmichael	8141A	9232
Naled	ND	mg/kg	1.06	0.200	1	12/30/01	0:12	Carmichael	8141A	9232
Methylparathion	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Phorate	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Ronnel	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Stirofos	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Tokuthion	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232

report continued . . .

ANALYTICAL REPORT

Laboratory Number: 01-A188218
Sample ID: KARR-02
Project: 993-8534.0003

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichloronate	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Mirex	ND	mg/kg	0.002	0.002	1	1/15/02	19:47	Henderson	8141OA	6659
Trifluralin	ND	mg/kg	0.002	0.002	1	1/15/02	19:47	Henderson	8081A	6659
Dimethoate	ND	mg/kg	0.212	0.100	1	12/30/01	0:12	Carmichael	8141A	9232
EPN	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Malathion	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Monocrotophos	ND	mg/kg	1.06	0.660	1	12/30/01	0:12	Carmichael	8141A	9232
Ethyl parathion	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
Sulfotep	ND	mg/kg	0.106	0.0980	1	12/30/01	0:12	Carmichael	8141A	9232
TEPP	ND	mg/kg	1.06	0.333	1	12/30/01	0:12	Carmichael	8141A	9232
Permethrin	ND	mg/kg	0.00725	0.00670	1	1/15/02	19:47	Henderson	8081A	6659
Picloram	ND	mg/kg	0.0180	0.0010	1	1/ 5/02	1:04	Hardcastle	8151A	9693
% Dry Weight	92.4	%			1	12/27/01	13:27	D. Harris	CLP	6774
Acifluorfen	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:04	H.Henderson	8151	
Bentazon	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:04	H.Henderson	8151	
Chloramben	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:04	H.Henderson	8151	
DCPA	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:04	H.Henderson	8151	
3,5-Dichlorbenzoic acid	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:04	H.Henderson	8151	

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
OP Pest	10.2 gm	10.0 ml	12/28/01		D. Harris	3550
Misc OP Pest	10.0 gm	10.0 ml	1/ 2/02		D. Harris	3550
OC Pest	30.5 gm	10.0 ml	12/28/01		D. Harris	3550
Herbicides	30. gm	10.0 ml	1/ 4/02		D. Harris	8151

report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 01-A188218
Sample ID: KARR-02
Project: 993-8534.0003

Surrogate	% Recovery	Target Range
surr-Bromo-2-nitrobenze	54.	41. - 92.
pest surr-TCMX	76.	36. - 153.
pest surr-DCB	88.	51. - 181.
surr-DCAA	54.	24. - 173.

LABORATORY COMMENTS:

ND - Not detected at the report limit.

- Recovery outside Laboratory historical or method prescribed limits.

All reported results for metals or Organic analyses have been corrected for dry weight.

Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

GOLDER ASSOCIATES INC. 3871
DAVID P. REGALBUTO
16821 WOOD ROAD
LANSING, MI 48906

Project: 993-8534.0003
Project Name: WHR-GMA
Sampler: JAMES GARRETT

Lab Number: 01-A188219
Sample ID: CITY-01
Sample Type: Soil
Site ID:

Date Collected: 12/19/01
Time Collected:
Date Received: 12/24/01
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES										
2,4-D	ND	mg/kg	0.2173	0.1667	1	1/ 5/02	1:35	Hardcastle	8151A	9693
2,4,5-T	ND	mg/kg	0.022	0.017	1	1/ 5/02	1:35	Hardcastle	8151A	9693
2,4,5-TP (Silvex)	ND	mg/kg	0.0217	0.0167	1	1/ 5/02	1:35	Hardcastle	8151A	9693
Dalapon	ND	mg/kg	0.435	0.333	1	1/ 5/02	1:35	Hardcastle	8151A	9693
2,4-DB	ND	mg/kg	0.217	0.167	1	1/ 5/02	1:35	Hardcastle	8151A	9693
Dicamba	ND	mg/kg	0.0217	0.0167	1	1/ 5/02	1:35	Hardcastle	8151A	9693
Dichloroprop	ND	mg/kg	0.217	0.167	1	1/ 5/02	1:35	Hardcastle	8151A	9693
Dinoseb	ND	mg/kg	0.1086	0.0830	1	1/ 5/02	1:35	Hardcastle	8151A	9693
MCPA	ND	mg/kg	21.7	16.7	1	1/ 5/02	1:35	Hardcastle	8151A	9693
MCPP	ND	mg/kg	21.7	16.7	1	1/ 5/02	1:35	Hardcastle	8151A	9693
Atrazine	ND	mg/kg	0.128	0.0980	1	1/ 2/02	21:56	Henderson	8141A	49
Simazine	ND	mg/kg	0.128	0.0980	1	1/ 2/02	21:56	Henderson	8141A	49
Pentachlorophenol	ND	mg/kg	0.0217	0.0167	1	1/ 5/02	1:35	Hardcastle	8151A	9693
4-Nitrophenol	ND	mg/kg	0.0217	0.0010	1	1/ 5/02	1:35	Hardcastle	8151A	9693
Propachlor	ND	mg/kg	0.0218	0.0167	1	1/15/02	20:16	Henderson	8081A	6659
Alachlor	ND	mg/kg	0.128	0.098	1	1/ 2/02	21:56	Henderson	8141A	49
Aldrin	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
a-BHC	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
b-BHC	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
d-BHC	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
g-BHC, Lindane	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
4,4'-DDD	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332
4,4'-DDE	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332
4,4'DDT	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332

report continued . . .

ANALYTICAL REPORT

Laboratory Number: 01-A188219
Sample ID: CITY-01
Project: 993-8534.0003

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Dieldrin	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Endosulfan I	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Endosulfan II	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Endosulfan sulfate	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Endrin	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Endrin aldehyde	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Endrin Ketone	ND	mg/kg	0.00434	0.00333	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Heptachlor	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Heptachlor epoxide	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Hexachlorobenzene	ND	mg/kg	0.00434	0.00167	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Methoxychlor	ND	mg/kg	0.0217	0.0166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Toxaphene	ND	mg/kg	0.217	0.166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
alpha-Chlordane	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
gamma-Chlordane	ND	mg/kg	0.00217	0.00166	1	1/ 4/02	15:41	Hardcastle	8081A	8332
Azinphos, methyl	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Bolstar	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Chlorpyrifos	ND	mg/kg	0.132	0.101	1	12/30/01	0:34	Carmichael	8141A	9232
Coumaphos	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Demeton-o	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Demeton-s	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Diazinon	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Dichlorvos	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Disulfoton	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Ethoprop	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Fensulfothion	ND	mg/kg	0.263	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Fenthion	ND	mg/kg	0.132	0.101	1	12/30/01	0:34	Carmichael	8141A	9232
Merphos	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Mevinphos	ND	mg/kg	0.263	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Naled	ND	mg/kg	1.32	0.200	1	12/30/01	0:34	Carmichael	8141A	9232
Methylparathion	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Phorate	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Ronnel	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Stirofos	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Tokuthion	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232

report continued . . .

ANALYTICAL REPORT

Laboratory Number: 01-A188219
Sample ID: CITY-01
Project: 993-8534.0003

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichloronate	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Mirex	ND	mg/kg	0.003	0.002	1	1/15/02	20:16	Henderson	8141OA	6659
Trifluralin	ND	mg/kg	0.003	0.002	1	1/15/02	20:16	Henderson	8081A	6659
Dimethoate	ND	mg/kg	0.263	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
EPN	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Malathion	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Monocrotophos	ND	mg/kg	1.32	0.660	1	12/30/01	0:34	Carmichael	8141A	9232
Ethyl parathion	ND	mg/kg	0.132	0.100	1	12/30/01	0:34	Carmichael	8141A	9232
Sulfotep	ND	mg/kg	0.132	0.101	1	12/30/01	0:34	Carmichael	8141A	9232
TEPP	ND	mg/kg	1.32	0.333	1	12/30/01	0:34	Carmichael	8141A	9232
Permethrin	ND	mg/kg	0.00874	0.00670	1	1/15/02	20:16	Henderson	8081A	6659
Picloram	ND	mg/kg	0.0217	0.0010	1	1/ 5/02	1:35	Hardcastle	8151A	9693
% Dry Weight	76.7	%			1	12/27/01	13:27	D. Harris	CLP	6774
Acifluorfen	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:35	H.Henderson	8151	
Bentazon	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:35	H.Henderson	8151	
Chloramben	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:35	H.Henderson	8151	
DCPA	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:35	H.Henderson	8151	
3,5-Dichlorbenzoic acid	ND	mg/kg	0.167	0.167	1.	1/ 5/02	1:35	H.Henderson	8151	

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
OP Pest	9.90 gm	10.0 ml	12/28/01		D. Harris	3550
Misc OP Pest	10.2 gm	10.0 ml	1/ 2/02		D. Harris	3550
OC Pest	30.1 gm	10.0 ml	12/28/01		D. Harris	3550
Herbicides	30. gm	10.0 ml	1/ 4/02		D. Harris	8151

report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 01-A188219
Sample ID: CITY-01
Project: 993-8534.0003

Surrogate	% Recovery	Target Range
surr-Bromo-2-nitrobenze	55.	41. - 92.
pest surr-TCMX	80.	36. - 153.
pest surr-DCB	86.	51. - 181.
surr-DCAA	92.	24. - 173.

LABORATORY COMMENTS:

ND - Not detected at the report limit.

- Recovery outside Laboratory historical or method prescribed limits.

All reported results for metals or Organic analyses have been corrected for dry weight.

Sample Report.

TestAmerica
INCORPORATED

ANALYTICAL REPORT

GOLDER ASSOCIATES INC. 3871
DAVID P. REGALBUTO
16821 WOOD ROAD
LANSING, MI 48906

Project: 993-8534.0003
Project Name: WHR-GMA
Sampler: JAMES GARRETT

Lab Number: 01-A188220
Sample ID: CITY-02
Sample Type: Soil
Site ID:

Date Collected: 12/19/01
Time Collected:
Date Received: 12/24/01
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
PESTICIDE/PCB's/HERBICIDES										
2,4-D	ND	mg/kg	0.2112	0.1667	1	1/ 5/02	2:07	Hardcastle	8151A	9693
2,4,5-T	ND	mg/kg	0.021	0.017	1	1/ 5/02	2:07	Hardcastle	8151A	9693
2,4,5-TP (Silvex)	ND	mg/kg	0.0211	0.0167	1	1/ 5/02	2:07	Hardcastle	8151A	9693
Dalapon	ND	mg/kg	0.422	0.333	1	1/ 5/02	2:07	Hardcastle	8151A	9693
2,4-DB	ND	mg/kg	0.211	0.167	1	1/ 5/02	2:07	Hardcastle	8151A	9693
Dicamba	ND	mg/kg	0.0211	0.0167	1	1/ 5/02	2:07	Hardcastle	8151A	9693
Dichloroprop	ND	mg/kg	0.211	0.167	1	1/ 5/02	2:07	Hardcastle	8151A	9693
Dinoseb	ND	mg/kg	0.1056	0.0830	1	1/ 5/02	2:07	Hardcastle	8151A	9693
MCPA	ND	mg/kg	21.1	16.7	1	1/ 5/02	2:07	Hardcastle	8151A	9693
MCPP	ND	mg/kg	21.1	16.7	1	1/ 5/02	2:07	Hardcastle	8151A	9693
Atrazine	ND	mg/kg	0.123	0.0971	1	1/ 2/02	22:18	Henderson	8141A	49
Simazine	ND	mg/kg	0.123	0.0971	1	1/ 2/02	22:18	Henderson	8141A	49
Pentachlorophenol	ND	mg/kg	0.0211	0.0167	1	1/ 5/02	2:07	Hardcastle	8151A	9693
4-Nitrophenol	ND	mg/kg	0.0211	0.0010	1	1/ 5/02	2:07	Hardcastle	8151A	9693
Propachlor	ND	mg/kg	0.0212	0.0167	1	1/15/02	20:44	Henderson	8081A	6659
Alachlor	ND	mg/kg	0.123	0.097	1	1/ 2/02	22:18	Henderson	8141A	49
Aldrin	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
a-BHC	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
b-BHC	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
d-BHC	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
g-BHC, Lindane	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
4,4'-DDD	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332
4,4'-DDE	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332
4,4'DDT	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332

report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 01-A188220
Sample ID: CITY-02
Project: 993-8534.0003

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Dieldrin	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Endosulfan I	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Endosulfan II	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Endosulfan sulfate	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Endrin	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Endrin aldehyde	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Endrin Ketone	ND	mg/kg	0.00422	0.00333	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Heptachlor	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Heptachlor epoxide	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Hexachlorobenzene	ND	mg/kg	0.00422	0.00167	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Methoxychlor	ND	mg/kg	0.0211	0.0166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Toxaphene	ND	mg/kg	0.211	0.166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
alpha-Chlordane	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
gamma-Chlordane	ND	mg/kg	0.00211	0.00166	1	1/ 4/02	16:10	Hardcastle	8081A	8332
Azinphos, methyl	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Bolstar	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Chlorpyrifos	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Coumaphos	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Demeton-o	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Demeton-s	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Diazinon	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Dichlorvos	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Disulfoton	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Ethoprop	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Fensulfothion	ND	mg/kg	0.253	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Fenthion	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Merphos	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Mevinphos	ND	mg/kg	0.253	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Naled	ND	mg/kg	1.27	0.200	1	12/30/01	0:57	Carmichael	8141A	9232
Methylparathion	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Phorate	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Ronnel	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Stirofos	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Tokuthion	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232

e report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 01-A188220
Sample ID: CITY-02
Project: 993-8534.0003

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
Trichloronate	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Mirex	ND	mg/kg	0.003	0.002	1	1/15/02	20:44	Henderson	8141OA	6659
Trifluralin	ND	mg/kg	0.003	0.002	1	1/15/02	20:44	Henderson	8081A	6659
Dimethoate	ND	mg/kg	0.253	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
EPN	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Malathion	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Monocrotophos	ND	mg/kg	1.27	0.660	1	12/30/01	0:57	Carmichael	8141A	9232
Ethyl parathion	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
Sulfotep	ND	mg/kg	0.127	0.100	1	12/30/01	0:57	Carmichael	8141A	9232
TEPP	ND	mg/kg	1.27	0.333	1	12/30/01	0:57	Carmichael	8141A	9232
Permethrin	ND	mg/kg	0.00849	0.00670	1	1/15/02	20:44	Henderson	8081A	6659
Picloram	ND	mg/kg	0.0211	0.0010	1	1/ 5/02	2:07	Hardcastle	8151A	9693
% Dry Weight	78.9	%			1	12/27/01	13:27	D. Harris	CLP	6774
Acifluorfen	ND	mg/kg	0.167	0.167	1.	1/ 5/02	2:07	H.Henderson	8151	
Bentazon	ND	mg/kg	0.167	0.167	1.	1/ 5/02	2:07	H.Henderson	8151	
Chloramben	ND	mg/kg	0.167	0.167	1.	1/ 5/02	2:07	H.Henderson	8151	
DCPA	ND	mg/kg	0.167	0.167	1.	1/ 5/02	2:07	H.Henderson	8151	
3,5-Dichlorbenzoic acid	ND	mg/kg	0.167	0.167	1.	1/ 5/02	2:07	H.Henderson	8151	

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
OP Pest	10.0 gm	10.0 ml	12/28/01		D. Harris	3550
Misc OP Pest	10.3 gm	10.0 ml	1/ 2/02		D. Harris	3550
OC Pest	30.3 gm	10.0 ml	12/28/01		D. Harris	3550
Herbicides	30. gm	10.0 ml	1/ 4/02		D. Harris	8151

e report continued . . .

TestAmerica
INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 01-A188220
Sample ID: CITY-02
Project: 993-8534.0003

Surrogate	% Recovery	Target Range
surr-Bromo-2-nitrobenze	53.	41. - 92.
pest surr-TCMX	82.	36. - 153.
pest surr-DCB	86.	51. - 181.
surr-DCAA	74.	24. - 173.

LABORATORY COMMENTS:

ND - Not detected at the report limit.

- Recovery outside Laboratory historical or method prescribed limits.

All reported results for metals or Organic analyses have been corrected for dry weight.

Sample Report.

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA
Project Number: 993-8534.0003

Matrix Spike Recovery

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
PEST/PCB/HERB PARAMETERS								
Aldrin	mg/kg	< 0.00166	0.0143	0.0167	86	36. - 137.	8332	01-A187606
g-BHC, Lindane	mg/kg	< 0.00166	0.0147	0.0167	88	34. - 139.	8332	01-A187606
4,4'DDT	mg/kg	0.00300	0.0143	0.0167	68	29. - 157.	8332	01-A187606
Dieldrin	mg/kg	< 0.00333	0.0147	0.0167	88	29. - 149.	8332	01-A187606
Endrin	mg/kg	< 0.00333	0.0153	0.0167	92	36. - 150.	8332	01-A187606
Heptachlor	mg/kg	< 0.00166	0.0143	0.0167	86	37. - 140.	8332	01-A187606
Dimethoate	mg/kg	< 0.200	0.480	0.500	96	29. - 161.	9232	01-A188220
EPN	mg/kg	< 0.100	0.500	0.500	100	44. - 160.	9232	01-A188220
Malathion	mg/kg	< 0.100	0.520	0.500	104	49. - 162.	9232	01-A188220
Ethyl parathion	mg/kg	< 0.100	0.460	0.500	92	40. - 168.	9232	01-A188220
Sulfotep	mg/kg	< 0.100	0.500	0.500	100	20. - 163.	9232	01-A188220

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
PEST/PCB/HERB PARAMETERS						
Aldrin	mg/kg	0.0143	0.0147	2.76	40.	8332
g-BHC, Lindane	mg/kg	0.0147	0.0150	2.02	52.	8332
4,4'DDT	mg/kg	0.0143	0.0180	22.91	44.	8332
Dieldrin	mg/kg	0.0147	0.0147	0.00	51.	8332
Endrin	mg/kg	0.0153	0.0157	2.58	51.	8332
Heptachlor	mg/kg	0.0143	0.0147	2.76	49.	8332
Dimethoate	mg/kg	0.480	0.460	4.26	69.	9232
EPN	mg/kg	0.500	0.510	1.98	45.	9232
Malathion	mg/kg	0.520	0.510	1.94	50.	9232
Ethyl parathion	mg/kg	0.460	0.470	2.15	47.	9232
Sulfotep	mg/kg	0.500	0.460	8.33	52.	9232

QC continued . . .

PROJECT QUALITY CONTROL DATA
Project Number: 993-8534.0003
Page: 2

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
PEST/PCB/HERB PARAMETERS						
2,4-D	mg/kg	0.1667	0.1017	61	21 - 110	9693
2,4,5-T	mg/kg	0.167	0.107	64	31 - 99	9693
2,4,5-TP (Silvex)	mg/kg	0.1667	0.0970	58	34 - 104	9693
Dalapon	mg/kg	0.167	0.0550	33	10 - 72	9693
2,4-DB	mg/kg	0.167	0.107	64	3 - 134	9693
Dicamba	mg/kg	0.167	0.105	63	30 - 106	9693
[illegible]chloroprop	mg/kg	0.167	0.109	65	35 - 122	9693
[illegible]noseb	mg/kg	0.1667	0.0763	46	6 - 86	9693
MCPA	mg/kg	16.7	11.5	69	16 - 127	9693
MCPP	mg/kg	16.7	11.0	66	25 - 120	9693
Atrazine	mg/kg	0.500	0.560	112	53 - 162	49
Simazine	mg/kg	0.500	0.590	118	53 - 162	49
Pentachlorophenol	mg/kg	0.1667	0.1047	63	26 - 109	9693
4-Nitrophenol	mg/kg	0.1667	0.1027	62	26 - 101	9693
Alachlor	mg/kg	0.500	0.410	82	-	49
Aldrin	mg/kg	0.0167	0.0157	94	57 - 131	8332
a-BHC	mg/kg	0.0167	0.0160	96	55 - 133	8332
b-BHC	mg/kg	0.0167	0.0157	94	57 - 132	8332
d-BHC	mg/kg	0.0167	0.0166	99	48 - 132	8332
g-BHC, Lindane	mg/kg	0.0167	0.0160	96	57 - 132	8332
4,4'-DDD	mg/kg	0.0167	0.0163	98	54 - 145	8332
4,4'-DDE	mg/kg	0.0167	0.0157	94	54 - 141	8332
4,4'DDT	mg/kg	0.0167	0.0147	88	51 - 141	8332
Dieldrin	mg/kg	0.0167	0.0157	94	62 - 127	8332
Endosulfan I	mg/kg	0.0167	0.00832	50 #	57 - 135	8332
Endosulfan II	mg/kg	0.0167	0.00999	60 #	61 - 134	8332
Endosulfan sulfate	mg/kg	0.0167	0.0173	104	61 - 129	8332
Endrin	mg/kg	0.0167	0.0160	96	58 - 136	8332
Endrin aldehyde	mg/kg	0.0167	0.0160	96	57 - 137	8332
Endrin Ketone	mg/kg	0.0167	0.0157	94	60 - 131	8332
Heptachlor	mg/kg	0.0167	0.0153	92	57 - 132	8332

[illegible]t QC continued . . .

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA
Project Number: 993-8534.0003

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Heptachlor epoxide	mg/kg	0.0167	0.0157	94	62 - 130	8332
Hexachlorobenzene	mg/kg	0.0167	0.0163	98	10 - 141	8332
Methoxychlor	mg/kg	0.0167	0.0150	90	48 - 148	8332
Toxaphene	mg/kg	0.333	0.332	100	59 - 168	8332
alpha-Chlordane	mg/kg	0.0167	0.0157	94	59 - 133	8332
gamma-Chlordane	mg/kg	0.0167	0.0153	92	62 - 130	8332
Azinphos, methyl	mg/kg	0.500	0.520	104	60 - 160	9232
Bolstar	mg/kg	0.500	0.490	98	62 - 163	9232
Chlorpyrifos	mg/kg	0.500	0.500	100	61 - 158	9232
Coumaphos	mg/kg	0.500	0.560	112	62 - 160	9232
Demeton-o	mg/kg	0.500	0.550	110	28 - 177	9232
Demeton-s	mg/kg	0.500	0.550	110	40 - 169	9232
Diazinon	mg/kg	0.500	0.520	104	64 - 156	9232
Dichlorvos	mg/kg	0.500	0.560	112	57 - 154	9232
Disulfoton	mg/kg	0.500	0.540	108	44 - 171	9232
Ethoprop	mg/kg	0.500	0.520	104	66 - 156	9232
Fensulfothion	mg/kg	0.500	0.460	92	47 - 163	9232
Fenthion	mg/kg	0.500	0.580	116	58 - 163	9232
Merphos	mg/kg	0.500	0.610	122	53 - 161	9232
Mevinphos	mg/kg	0.500	0.490	98	53 - 148	9232
Naled	mg/kg	0.500	< 1.00	N/A	53 - 162	9232
Methylparathion	mg/kg	0.500	0.530	106	67 - 160	9232
Phorate	mg/kg	0.500	0.490	98	47 - 162	9232
Ronnel	mg/kg	0.500	0.440	88	52 - 165	9232
Stirofos	mg/kg	0.500	0.580	116	64 - 161	9232
Tokuthion	mg/kg	0.500	0.500	100	65 - 158	9232
Trichloronate	mg/kg	0.500	0.460	92	60 - 166	9232
Dimethoate	mg/kg	0.500	0.460	92	34 - 161	9232
EPN	mg/kg	0.500	0.530	106	60 - 163	9232
Malathion	mg/kg	0.500	0.540	108	56 - 162	9232
Monocrotophos	mg/kg	0.500	0.110	22 #	24 - 191	9232
Ethyl parathion	mg/kg	0.500	0.450	90	62 - 168	9232
Sulfotep	mg/kg	0.500	0.510	102	32 - 157	9232

QC continued . . .

PROJECT QUALITY CONTROL DATA
Project Number: 993-8534.0003
Page: 4

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Picloram	mg/kg	0.1667	0.0680	41	21 - 108	9693

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
PEST/PCB/HERB PARAMETERS					
2,4-D	< 0.1667	mg/kg	9693	1/ 4/02	21:21
2,4,5-T	< 0.017	mg/kg	9693	1/ 4/02	21:21
2,4,5-TP (Silvex)	< 0.0167	mg/kg	9693	1/ 4/02	21:21
Dalapon	< 0.333	mg/kg	9693	1/ 4/02	21:21
2,4-DB	< 0.167	mg/kg	9693	1/ 4/02	21:21
Dicamba	< 0.0167	mg/kg	9693	1/ 4/02	21:21
Dichloroprop	< 0.167	mg/kg	9693	1/ 4/02	21:21
Dinoseb	< 0.0833	mg/kg	9693	1/ 4/02	21:21
MCPA	< 16.7	mg/kg	9693	1/ 4/02	21:21
MCPP	< 16.7	mg/kg	9693	1/ 4/02	21:21
Atrazine	< 0.0822	mg/kg	49	1/ 2/02	18:57
Simazine	< 0.0888	mg/kg	49	1/ 2/02	18:57
Pentachlorophenol	< 0.0167	mg/kg	9693	1/ 4/02	21:21
4-Nitrophenol	< 0.0167	mg/kg	9693	1/ 4/02	21:21
Alachlor	< 0.100	mg/kg	49	1/ 2/02	18:57
Aldrin	< 0.00166	mg/kg	8332	1/ 3/02	15:10
a-BHC	< 0.00166	mg/kg	8332	1/ 3/02	15:10
b-BHC	< 0.00166	mg/kg	8332	1/ 3/02	15:10
d-BHC	< 0.00166	mg/kg	8332	1/ 3/02	15:10
g-BHC, Lindane	< 0.00166	mg/kg	8332	1/ 3/02	15:10
4,4'-DDD	< 0.00333	mg/kg	8332	1/ 3/02	15:10
4,4'-DDE	< 0.00333	mg/kg	8332	1/ 3/02	15:10
4,4'DDT	< 0.00333	mg/kg	8332	1/ 3/02	15:10
Dieldrin	< 0.00333	mg/kg	8332	1/ 3/02	15:10
Endosulfan I	< 0.00166	mg/kg	8332	1/ 3/02	15:10

QC continued . . .

PROJECT QUALITY CONTROL DATA
Project Number: 993-8534.0003

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Endosulfan II	< 0.00333	mg/kg	8332	1/ 3/02	15:10
Endosulfan sulfate	< 0.00333	mg/kg	8332	1/ 3/02	15:10
Endrin	< 0.00333	mg/kg	8332	1/ 3/02	15:10
Endrin aldehyde	< 0.00333	mg/kg	8332	1/ 3/02	15:10
Endrin Ketone	< 0.00333	mg/kg	8332	1/ 3/02	15:10
Heptachlor	< 0.00166	mg/kg	8332	1/ 3/02	15:10
Heptachlor epoxide	< 0.00166	mg/kg	8332	1/ 3/02	15:10
Hexachlorobenzene	< 0.00333	mg/kg	8332	1/ 3/02	15:10
Methoxychlor	< 0.0166	mg/kg	8332	1/ 3/02	15:10
Toxaphene	< 0.166	mg/kg	8332	1/ 3/02	15:10
alpha-Chlordane	< 0.00166	mg/kg	8332	1/ 3/02	15:10
gamma-Chlordane	< 0.00166	mg/kg	8332	1/ 3/02	15:10
Azinphos, methyl	< 0.100	mg/kg	9232	12/29/01	22:20
Bolstar	< 0.100	mg/kg	9232	12/29/01	22:20
Chlorpyrifos	< 0.100	mg/kg	9232	12/29/01	22:20
Coumaphos	< 0.100	mg/kg	9232	12/29/01	22:20
Demeton-o	< 0.100	mg/kg	9232	12/29/01	22:20
Demeton-s	< 0.100	mg/kg	9232	12/29/01	22:20
Diazinon	< 0.100	mg/kg	9232	12/29/01	22:20
Dichlorvos	< 0.200	mg/kg	9232	12/29/01	22:20
Disulfoton	< 0.200	mg/kg	9232	12/29/01	22:20
Ethoprop	< 0.100	mg/kg	9232	12/29/01	22:20
Fensulfothion	< 0.200	mg/kg	9232	12/29/01	22:20
Fenthion	< 0.200	mg/kg	9232	12/29/01	22:20
Merphos	< 0.200	mg/kg	9232	12/29/01	22:20
Mevinphos	< 0.200	mg/kg	9232	12/29/01	22:20
Naled	< 1.00	mg/kg	9232	12/29/01	22:20
Methylparathion	< 0.200	mg/kg	9232	12/29/01	22:20
Phorate	< 0.100	mg/kg	9232	12/29/01	22:20
Ronnel	< 0.200	mg/kg	9232	12/29/01	22:20
Stirofos	< 0.100	mg/kg	9232	12/29/01	22:20
Tokuthion	< 0.100	mg/kg	9232	12/29/01	22:20
Trichloronate	< 0.100	mg/kg	9232	12/29/01	22:20

t QC continued . . .

TestAmerica
INCORPORATED

PROJECT QUALITY CONTROL DATA
Project Number: 993-8534.0003

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Dimethoate	< 0.200	mg/kg	9232	12/29/01	22:20
EPN	< 0.100	mg/kg	9232	12/29/01	22:20
Malathion	< 0.100	mg/kg	9232	12/29/01	22:20
Monocrotophos	< 0.100	mg/kg	9232	12/29/01	22:20
Ethyl parathion	< 0.100	mg/kg	9232	12/29/01	22:20
Sulfotep	< 0.100	mg/kg	9232	12/29/01	22:20
TEPP	< 0.200	mg/kg	9232	12/29/01	22:20
Picloram	< 0.0167	mg/kg	9693	1/ 4/02	21:21
surr-Bromo-2-nitrobenze	65.	% Rec	49	1/ 2/02	18:57
pest surr-TCMX	86.	% Rec	8332	1/ 3/02	15:10
pest surr-DCB	90.	% Rec	8332	1/ 3/02	15:10
surr-DCAA	80.	% Rec	9693	1/ 4/02	21:21

- Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 265973

CHAIN OF CUSTODY RECORD

TestAmerica INCORPORATED

Nashville Division
2960 Foster Creighton Drive
Nashville, TN 37204

Phone: 615-726-0177
Toll Free: 800-765-0980
Fax: 615-726-3404

3821

To assist us in using the proper analytical methods for this work being conducted for regulatory purposes

Compliance Monitoring? Yes (No)
Enforcement Action? Yes (No)

Client Name: Golder Associates Inc.
Address: 16821 Wood Rd.
City/State/Zip: Lansing, Mi 48906
Project Manager: David P. Regalbuto
Telephone Number: 517-482-2262 Fax No.: 517-482-2460
Sampler Name: (Print) James Garrett
Sampler Signature: David Regalbuto for James Garrett

Report To: Same
Invoice To:
TA Quote #:
Project ID: ~~993~~ WHR-GMA
Project #: 993-8534.0003

RECEIVED JAN 22 2002

265973

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass/Yellow Label)	None (White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: PCB 8082	VOC 8260	SVOC 8270	RCRA (8) Metals	Pesticides (8141A)	Herbicides (8151A)	Pesticides (8081A)	RUSH TAT (Pre-Scheduled)	Standard TAT	Fax Results	Send QC with report
Karr - Ø1 188217	12/19/01		1	X															X						X	X	X		X		X
Karr - Ø2 188218			1	X															X						X	X	X		X		X
City - Ø1 188219			1	X															X						X	X	X		X		X
City - Ø2 188220	↓		1	X															X						X	X	X		X		X
																								Sele							
																								Note							

Special Instructions: COC completed by Dave Regalbuto in Lansing, Mi for James Garrett, who shipped samples from Clyde, OH

Method of Shipment: FEDEX

Laboratory Comments:
Temperature Upon Receipt: 4°
VOCs Free of Headspace? Y N

Relinquished by:	Date	Time	Received by:	Date	Time
James Garrett (DP)	12/19/01				
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time
			M. Bailey	12/24/01	9:00

Note: Include all analytes on attached 8141A, 8081A, 8151A lists, including those in italics. No 8082

P.2

Table 5-18
Quality Assurance Objectives
Method 3550B 8081A and 3550B 8082 For Sediments, Soils, Hazardous Wastes

Table 5-18 8081A, 8082, soil Analyte	Matrix Precision %	Matrix Accuracy %	LCS Accuracy %	Col.Set 1 MDL ug/kg	Col.Set 2 MDL ug/kg	QL ug/kg	LIMS Analyte Number
8081A							
Alachlor			ID			3.33	22665
Aldrin	42	41-148	65-134	0.82	0.89	1.67	21605
a-BHC			60-136	0.86	0.68	1.67	21585
b-BHC			65-135	1.18	0.74	1.67	21595
d-BHC			55-137	0.82	0.66	1.67	21605
g-BHC (Lindane)	41	45-139	63-134	0.77	0.63	1.67	21615
a-Chlordane			69-133	0.71	1.35	1.67	21625
g-Chlordane			71-133	0.59	1.20	1.67	21635
4,4'-DDD			58-145	1.29	1.33	3.33	21636
4,4'-DDE			63-140	1.36	0.73	3.33	21645
4,4'-DDT	42	42-150	61-139	1.16	0.86	3.33	21655
Dieldrin	40	44-147	63-141	0.82	1.40	3.33	21665
Endosulfan I			66-136	0.90	1.26	1.67	21675
Endosulfan II			71-133	0.90	0.92	3.33	21685
Endosulfan sulfate			65-136	1.36	0.70	3.33	21695
Endrin	40	46-151	65-140	1.12	1.61	3.33	21705
Endrin aldehyde			65-137	0.90	1.21	3.33	21715
Endrin ketone			67-139	0.94	0.63	3.33	21725
Heptachlor	33	49-142	65-136	0.82	0.59	1.67	21735
Heptachlor epoxide			67-135	0.64	1.48	1.67	21745
Hexachloro-benzene			58-142	0.71	0.77	1.67	21755
Methoxychlor			58-145	1.24	1.02	16.7	21765
Mirex			ID			1.67	
Permethrin			ID			3.33	22745
Propachlor			ID			3.33	21285
Toxaphene			77-148			166.7	21775
Trifluralin			ID			3.33	22815
8082							
PCB 1016			73-162	8.83	9.26	33.3	21515, 21905
PCB 1221			ID	12.0	16.0	66.7	21525
PCB 1232			ID	14.6	7.88	33.3	21535
PCB 1242			ID	9.34	4.43	33.3	21545
PCB 1248			ID	6.91	9.34	33.3	21555, 21945
PCB 1254			ID	7.38	4.54	33.3	21565
PCB 1260			58-169	9.14	13.7	33.3	21575, 21965

Table 5-18 8081A, 8082, soil Analyte	Matrix Precision %	Matrix Accuracy %	LCS Accuracy %	Col.Set 1 MDL ug/kg	Col.Set 2 MDL ug/kg	QL ug/kg	LIMS Analyte Number
PCB 1262			ID	13.8	5.65	33.3	
PCB 1268			ID	4.24	5.91	33.3	

Italicized compounds are only available upon special request by this method.
LCS = Laboratory Control Sample
MDL = Method Detection Limit (40 CFR 136, Appendix B Rev. 1.11)
QL = Quantitation Limit
LIMS Analyte Number = TAI -- Nashville Division's software designation for each specific analyte
ID = Insufficient Data

Matrix precision, matrix accuracy, and LCS accuracy are based on historical data.
Matrix precision and accuracy values are based on the middle range of the analytical curve.

Table 5-31
Quality Assurance Objectives
Method 8151A For Sediments, Soils, Hazardous Wastes

Table 5-31 Analyte	Matrix Precision %	Matrix Accuracy %	LCS Accuracy %	Col.Set 2 MDL ug/kg	QL ug/kg	LIMS Analyte Number
Acifluorfen					167	
Bentazon					167	
Chloramben					167	
2,4-D	57	14-120	35-123	7.8	167	21005
Dalapon	95	10-102	10-112	20.8	333	21035
2,4-DB	87	17-123	35-120	26.2	167	21045
DCPA					167	
Dicamba	71	10-115	32-116	9.69	17	21055
3,5-Dichlorobenzoic acid					167	
Dichloroprop	85	17-111	34-110	9.8	167	21065
Dinoseb	84	10-100	10-110	11.3	83	21075
MCPA	67	14-116	33-117	1039	1670	21085
MCPP	57	16-136	36-132	1021	1670	21095
4-Nitrophenol	74	10-125	10-124		33	21245
Pentachlorophenol	54	10-102	36-101	10.1	33	21235
Picloram	70	10-138	10-130		33	22785
2,4,5-T	59	10-103	22-108	4.58	17	21015
2,4,5-TP (Silvex)	82	12-107	29-112	5.2	17	21025

Italicized compounds are available only upon special request by this method.
LCS = Laboratory Control Sample
MDL = Method Detection Limit (40 CFR 136, Appendix B Rev. 1.11)
QL = Quantitation Limit
LIMS Analyte Number = TAI – Nashville Division's software designation for each specific analyte

Matrix precision, matrix accuracy, and LCS accuracy are based on historical data.
Matrix precision and accuracy values are based on the middle range of the analytical curve.

TABLE 5-27
Quality Assurance Objectives
Method 3540C Or 3550B 8141A For Sediments, Soils, Hazardous Wastes

Table 5-27 Analyte	Matrix Precision %	Matrix Accuracy %	LCS Accuracy %	RTXOP MDL ug/kg	RTX5 MDL ug/kg	QL ug/kg	LIMS Analyte Number
Atrazine			ID			100	21105
Bolstar			31-177	45.3	54.3	100	22015
Coumaphos			51-176	47.5	45.7	100	22035
Demeton			28-177 27-175	53.1	44.3	100	22045, 22055
Diazinon			63-158	51.2	43.6	100	22065
Dichlorvos			62-163	75.8	58.6	100	22075
Dimethoate	ID	26-153	20-156	59.8	29.5	100	22675
Disulfoton			51-164	46.4	59.7	100	22085
Dursban; Chlorpyrifos			50-169	43	160	200	22025
EPN	59	32-179	51-167	50.3	52.3	100	22685
Ethoprop			60-159	42.8	45.2	100	22095
Ethyl parathion	44	40-179	54-169	30.5	30.1	100	22715
Fensulfothion			35-173	58.8	49.5	100	22105
Fenthion			54-163	62.9	160	200	22115
Guthion; Azinphos-methyl			50-171	63.5	31.5	100	22005
Malathion	45	46-167	53-167	44.8	29.1	100	22695
Merphos			39-166	58.0	59.6	100	22125
Methylparathion			54-169	38.3	79.9	100	22155
Mevinphos			47-150	61.2	43.1	100	22135
Naled			46-179	96.4	69.0	200	22145
Phorate			36-169	58.6	61.6	100	22165
Ronnel			66-167	79.6	45.2	100	22175
Simazine			ID			200	21146
Stirofos			52-176	78.1	39.0	100	22185
Sulfotepp	43	40-151	37-155	39.0	44.3	200	22725
Tokuthion			65-168	45.8	47.8	100	22195
Trichloronate			60-164	51.8	70.2	100	22205

Italicized compounds are only available upon special request by this method.
LCS = Laboratory Control Sample
MDL = Method Detection Limit (40 CFR 136, Appendix B Rev. 1.11)
QL = Quantitation Limit
LIMS Analyte Number = TAI -- Nashville Division's software designation for each specific analyte
ID = Insufficient Data

Matrix precision, matrix accuracy, and LCS accuracy are based on historical data.
Matrix precision and accuracy values are based on the middle range of the analytical curve.

TESTAMERICA, INC.

COOLER RECEIPT FORM

Client: Calibre BC# 265473

Cooler Received On: 12/24/01 And Opened On: 12/24/01 By: Mark Beasley

M. Beasley
(Signature)

1. Temperature of Cooler when opened 4.0 DEGREES CELSIUS
2. Were custody seals on outside of cooler and intact? ..... YES NO
   a. If yes, what kind and where: TAPE
   b. Were the signature and date correct? ..... YES NO
3. Were custody seals on containers intact? ..... YES NO
4. Were custody papers inside cooler? ..... YES NO
5. Were custody papers properly filled out (ink, signed, etc)? ..... YES NO
6. Did you sign the custody papers in the appropriate place? ..... YES NO
7. What kind of packing material was used? Bubblewrap Peanuts Other None
8. Was sufficient ice used (if appropriate)? ..... YES NO
9. Did all bottles arrive in good condition (unbroken)? ..... YES NO
10. Were all bottle labels complete (#, date, signed, pres, etc)? ..... YES NO
11. Did all bottle labels and tags agree with custody papers? ..... YES NO
12. Were correct bottles used for the analysis requested? ..... YES NO
13. If present, was any observable VOA headspace present? ..... YES NO
14. If present, were VOA vials checked for absence of air bubbles and noted if found? ..... YES NO
15. Was sufficient amount of sample sent in each bottle? ..... YES NO
16. Were correct preservatives used? ..... YES NO
17. Was residual chlorine present (if appropriate?) ..... YES NO
18. Corrective action taken, if necessary:
    a. Name of person contacted: SEE ATTACHED FOR RESOLUTION IF NEEDED
    b. Date: _____